THE PRESENT METHOD OF INOCULATING FOR THE SMALL-POX.

To which are added,

Some EXPERIMENTS, inſtituted with a View to diſcover the Effects of a ſimilar Treatment in the Natural Small-Pox.

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TO THE

Royal College of Phyſicians

IN

LONDON,

This Treatiſe is inſcribed,

With all due Deference

and Reſpect,

BY

The AUTHOR.

INTRODUCTION.

FROM the time that I entered into the practice of medicine, and ſaw the danger to which the generality of thoſe who had the ſmall-pox in the natural way were expoſed, I could not but ſincerely wiſh, with every ſenſible perſon of the faculty, that Inoculation might become general.

A conſiderable ſhare of employment in this branch of my profeſſion has for upwards of twenty years occurred to me; and altho' I have been ſo fortunate as not to loſe a patient under inoculation, except

one child, about fourteen years ago, who after the eruption of a few diſtinct puſtules died of a fever, which I eſteemed wholly independent of the ſmall-pox, yet I muſt acknowledge that in ſome caſes the ſymptoms have coſt me not a little anxiety for the event.

Nor have the ſubſequent effects of this practice always been ſo favourable as one could wiſh; and tho' far from equalling thoſe which too often follow the natural ſmall-pox, either in reſpect to difficulty or number, yet they ſometimes gave no ſmall uneaſineſs to the operator.

It cannot likewiſe, it ought not to be concealed, that ſome of the inoculated have died under this proceſs, even under the care of very able

and experienced practitioners. But this number is so small, that, when compared with the mortality attending the natural small-pox, it is reduced almost to a cypher.

These circumstances, however, tended to discourage the operation in some degree. Practitioners were cautious of urging a process, of whose event they could not be certain: and parents, who were sensible enough to observe, that, though the chance was greatly in their favour, yet a blank might cast up against them, engaged in it with hesitation.

Humanity, as well as a wish to promote the honour and advantage of the art I profess, made me ever attentive to the improvement of this part of my employment. Dissatisfied

with the common methods, I had carefully attended to the circumſtances that ſeemed to contribute to the good or ill ſucceſs of this practice in the courſe of my own buſineſs, as well as to the beſt information I could get of the ſucceſs of others.

Many facts had induced me to think that regimen, preparation, and management would do much: that as the diſeaſe was of an inflammatory kind, a cooling regimen muſt certainly for the moſt part be reaſonable. Some faint eſſays were made to try how far this ſentiment might be juſt. But thoſe who are the beſt acquainted with the firſt aphoriſm of Hippocrates, will be the firſt in juſtifying a cautious procedure,

cedure, where the object is no leſs than the life of an individual.

In this ſituation I firſt heard, and with the utmoſt ſatisfaction, that in ſome parts of the nation, a new and more ſucceſsful method of inoculating was diſcovered, than had hitherto been practiſed. The relators gave incredible accounts of the ſucceſs; which was the more marvellous, as the operators were chiefly ſuch, as, by report, could lay but little claim to medical erudition.

Knowing that improvements which would do honour to the moſt elevated human underſtandings, are ſometimes ſtumbled upon by men of more confined abilities; and that in medicine, as well as in every other circumſtance in life, it is our duty

duty to avail ourſelves as much as poſſible of all diſcoveries tending to the common benefit, I embraced every *juſt opportunity* of informing myſelf of facts, circumſtances, and events, that either public fame, or more preciſe relations, brought to me. I uſe the term *juſt opportunity*, becauſe, if I am not miſinformed, endeavours have been uſed, inconſiſtent with equity and candour, to rob thoſe who are intitled to our gratitude for aſſiſting us in this important proceſs, of that ſhare of private emolument which is their due, let their title to the diſcovery be ever ſo paradoxical.

To expoſe patients, even in the inoculated ſmall pox, to all weathers, was a thing unheard of. To permit them through the whole pro-

greſs

greſs of the diſeaſe to go abroad, and follow their uſual vocations, and that they ſhould neither ſuffer any preſent evil, nor experience any diſagreeable conſequences, was ſtill more ſurprizing; yet an infinite number of inſtances have confirmed all this; and ſome of theſe inſtances will appear in the ſequel of this performance.

The deſign of this treatiſe is to bring the practice ſtill one ſtep nearer to perfection, and leſſen the ravages of a diſtemper, which is not a native of Britain, but, like the Plague, has been imported from a foreign country, and demands the exertion of all the powers we are poſſeſſed of, either to exterminate it from amongſt us, which perhaps is not practicable, or to render it leſs unſafe,

unſafe, if not wholly without difficulty or danger.

The following directions for this purpoſe, are the reſult of an extenſive practice: and if a ſtrong perſuaſion of the truth of what he writes, founded on repeated trials and impartial obſervations, ſhould have led the author to expreſs himſelf in a very ſanguine manner, the future experience of others he truſts will be his juſtification.

Hertford, Nov. 1.
1766.

Of

Of the Age, Constitution, and Season of the Year proper for Inoculation.

BEFORE I proceed to deſcribe the regimen and preparatives, it may not be improper to mention what has occurred to me in reſpect to the moſt ſuitable age and conſtitution for inoculation; and likewiſe what ſeaſons ſeem to be more or leſs favourable for the practice.

In regard to age; where it is left to my choice, I decline inoculating children under two years old. I know the common practice is againſt me in this particular; but my reaſons for rejecting ſuch are founded on obſervation and experience. I have, indeed, lately inoculated many under this age, at the preſſing entreaties of their parents, and

they have all done well. But it muſt be conſidered, that young children are expoſed to all the hazards of dentition, fevers, fluxes, convulſions, and other accidents, ſufficiently difficult in themſelves to manage in ſuch tender ſubjects, inſomuch that ſcarce two in three of all that are born, live to be two years old; as is demonſtrable from the Bills of Mortality.

Beſides, convulſive paroxyſms often accompany the variolous eruptive fever in children; and though generally looked upon in no unfavourable light, as often preceding a diſtinct kind of ſmall-pox, yet they are at all times attended with ſome degree of danger; nay, many, it is well known, have expired under them; while others, who have ſtruggled through with great difficulty, have been ſo debilitated, and their faculties ſo impaired, that the effects have been perceptible during the remaining part of their lives.

And even admitting the eruption to be favourable, and not attended with any ſuch alarm, yet ſhould a larger number of puſtules than

than uſual appear, or any untoward ſymptom happen, and require medical help, the unhappy ſufferer is much too young to be prevailed on to take unpalatable medicines, or ſubmit to other neceſſary meaſures, by perſuaſions, menaces, or bribes. I have often been preſent at afflicting ſcenes of this nature; and have reaſon to think that many children have died of the ſmall-pox in the natural way, merely from the impoſſibility of prevailing upon them to comply with what was proper, in caſes where little or no danger was diſcoverable, either from the number or ſpecies of the puſtules, the degree of fever, or any other apparent cauſe.

It muſt likewiſe be taken into conſideration, that young children have uſually a larger ſhare of puſtules from inoculation, than thoſe who are advanced a little farther in life; and that under this circumſtance it is well known many have died; and the proportion of theſe, ſo far as I can learn, is too great to encourage a continuance in the inoculation of young children; ſo that it ſeems moſt prudent to wait till this dangerous period be over, eſpecially as its du-

ration is ſo ſhort, that the danger of their receiving the ſmall-pox therein in the natural way is very little; and it is at this time much more eaſy to preſerve them from it, than when they are left more to themſelves, and may be more in the way of infection. But children above this period may be inoculated more freely; nor does there appear any reaſon to exclude healthy adults of any age, perſons of ſeventy having paſſed through this proceſs with the utmoſt eaſe, and without occaſioning the leaſt painful apprehenſion for the event.

In reſpect to conſtitution, greater liberties may be taken than have heretofore been judged admiſſible: perſons afflicted with various chronic complaints, of ſcrophulous, ſcorbutic, and arthritic habits; perſons of unwieldy corpulency, and of intemperate and irregular lives, have all paſſed through this diſeaſe, with as much eaſe and ſafety as the moſt temperate, healthy, and regular. But thoſe who labour under any acute or critical diſeaſes, or their effects, are obviouſly unfit and improper ſubjects. So likewiſe are thoſe where

where there are evident marks of corroſive acrimonious humours, or where there is a manifeſt debility of the whole frame from inanition or any other cauſe; all theſe ſhould be treated in a proper manner previous to the introduction of this diſeaſe. Conſtitutions diſpoſed to frequent returns of intermittents, ſeem likewiſe juſtly exceptionable; eſpecially as the preparatory regimen may in ſome habits increaſe this tendency. I have known, however, inſtances of ſevere ague fits attacking perſons between the inſertion of the matter and the eruption of the pock, and even during maturation; when the Peruvian bark has been given liberally and with ſucceſs; the principal buſineſs, in the mean time, ſuffering no injury or interruption.

Among the circumſtances generally conſidered as more or leſs propitious to inoculation, the ſeaſon of the year has hitherto been deemed a matter of ſome importance. Spring and autumn, for the moſt part, have been recommended, as being the moſt temperate ſeaſons; the cold of winter,

and

and the ſummer heats, having been judged unfavourable for this proceſs. But experience does not juſtify theſe opinions; for according to the beſt obſervation I have been able to make, inoculated perſons have generally had more puſtules in ſpring than at any other time of the year; and epidemic diſeaſes being commonly moſt frequent in autumn, eſpecially fluxes, intermittents, and ulcerated ſore throats (all which are liable to mix more or leſs with the ſmall-pox) the autumn, upon this account, does not ſeem to be the moſt favourable ſeaſon in general.

My opinion is, that conſidering the ſurprizing and indiſputable benefits ariſing at all times to patients in the ſmall-pox, from the free admiſſion of freſh cool air and evacuations (which will appear from ſome caſes hereafter ſubjoined) we may ſafely inoculate in all ſeaſons, provided care be taken to ſcreen the patients as much as poſſible from heat in ſummer, and to prevent them from keeping themſelves too warm, and too much ſhut up, as they are naturally diſpoſed to do, from the weather

weather in winter. And it is well known, that many have been inoculated in the depth of winter, and ſome during the greateſt heat in ſummer, without ſuffering any injury or inconvenience from either.

When ſeaſons, however, are marked with any peculiar epidemics, of ſuch a kind eſpecially as may render a mild diſeaſe more untractable, it may perhaps be moſt prudent not to inoculate while ſuch diſeaſes are prevalent.

An eminent phyſician of my acquaintance in London, at that time in conſiderable buſineſs, informed me, that in the year 1756 the ſmall-pox were very rife, in the ſummer of that year eſpecially. That in moſt of them the throat was ſo much affected, that about the ſeventh day from the eruption, when they ought to have taken liquors in abundance, they could not ſwallow a drop. The ptyaliſm was in the mean time copious; and the kind being for the moſt part confluent, they died on the tenth or eleventh day; and thoſe who ſunk under this

this diſtemper (who were by much the majority) all ſuffered from this cauſe. This inſtance is only given to ſhew the neceſſity of regarding the general ſtate of epidemics when we go into this operation; and to excite thoſe who are friends to this moſt beneficial diſcovery, to uſe every means in their power to provide againſt a ſingle inſtance of ill ſucceſs.

Of

Of the PREPARATION.

IN directing the preparatory regimen, I principally aim at theſe points: to reduce the patient, if in high health, to a low and more ſecure ſtate; to ſtrengthen the conſtitution, if too low; to correct what appears vitiated, and to clear the ſtomach and bowels, as much as may be, from all crudities and their effects. With this view, I order ſuch of my patients as conſtitute the firſt claſs, and who are by much the majority, to live in the following manner: to abſtain from all animal food, including broths, alſo butter and cheeſe, and from all fermented liquors, excepting ſmall beer, which is allowed ſparingly, and from all ſpices, and whatever poſſeſſes a manifeſt heating quality. The diet is to conſiſt of pudding, gruel, ſago, milk, rice-milk, fruit pyes, greens, roots, and vegetables of all the kinds in ſeaſon, prepared or raw. Eggs, though not to be eat alone, are allowed in puddings, and butter in pye-cruſt; the

patients are to be careful that they do not eat ſuch a quantity as to overload their ſtomachs, even of this kind of food. Tea, coffee, or chocolate are permitted for breakfaſt, to thoſe who chooſe or are accuſtomed to them.

In this manner they are to proceed about nine or ten days before the operation; during which period, at nearly equal diſtances, they are directed to take three doſes of the following powder, either made into pills, or mixed with a little ſyrup or jelly, at bedtime, and a doſe of Glauber's ſalt, diſſolved in thin water-gruel, each ſucceeding morning.

The powder is compoſed of eight grains of calomel, the ſame quantity of the compound powder of crabs claws, and one eighth part of a grain of emetic tartar. Inſtead of emetic tartar, I have ſometimes ſubſtituted two grains of precipitated ſulphur of antimony. In order to facilitate the diviſion of the doſes, a large quantity is prepared at once, and great care taken that the mixture is well performed.

This

This quantity is uſually ſufficient for a healthy ſtrong man; and the doſe muſt be leſſened for women or children, according to their age and ſtrength, as well as for perſons advanced in years.

The firſt doſe is commonly ordered at the commencement of the courſe; the ſecond, three or four days after; and the third, about the eighth or ninth day; and I chooſe to inoculate the day after the laſt doſe has been taken. On the days of purging, broths are allowed, and the patients are deſired to abſtain from unprepared vegetables.

What has hitherto been ſaid concerning the preparation, muſt be conſidered as proper only for the young or middle-aged, in a good ſtate of health; but among thoſe who are deſirous of inoculation are often found tender, delicate, and weakly women, men of bad ſtamina, valetudinarians by conſtitution, by illneſs, or intemperance; alſo aged perſons and children; and for theſe a very different treatment is directed; a milder courſe of medicine, rather of the alterative than purgative

gative kind, is here preferable; and in many inſtances, an indulgence in ſome light animal food, with a glaſs or two of wine in caſe of lowneſs, is not only allowable, but neceſſary to ſupport a proper degree of ſtrength, eſpecially in advanced age.

Children whoſe bowels are often tender, and ought not to be ruffled by ſtrong purges, yet require a mild mercurial, and bear it well: beſides emptying the bowels of crudities, it is a good ſecurity againſt worms and their effects, which are ſometimes of themſelves perplexing enough, and produce very alarming and even fatal diſorders.

Indeed the particular ſtate of health of every perſon entering upon the preparatory courſe, ſhould be inquired into and conſidered. Inattention to this has, I am ſatisfied, done great miſchief, and particularly the indiſcreet uſe of mercurials, whereby a ſalivation has often been raiſed, to the riſque of impairing good conſtitutions, and the ruin of ſuch as were previouſly weak and infirm. The diſtinctions and treatment

ment neceſſary, will be obvious to thoſe who are acquainted with the animal œconomy and medical practice.

The time of menſtruation has generally been the guide in reſpect to the inoculation of women; that the whole of the diſeaſe might be over within the menſtrual period. This I commonly obſerve, when I can chooſe my time without any inconvenience, and inoculate ſoon after the evacuation ceaſes; though I have no reaſon to decline performing the operation at any time; as I can produce many examples in which no inconvenience has ariſen, nor any difference been obſervable, when this circumſtance has been diſregarded.

Women with child have likewiſe been inoculated and done well; yet ſome particular emergency ſhould be pleaded in excuſe for it in their ſituation, as it may be attended with ſome hazard. I have not inoculated any woman whom I knew to be pregnant; but ſome who concealed their pregnancy have been inoculated by

by me, who, I fancy, hoped for an event that did not happen, I mean miſcarriages; one of theſe had a child born nine weeks after inoculation, at the full time, with diſtinct marks of the diſeaſe, though the mother had very few eruptions.

Of

Of Infection.

THE manner of communicating this diſtemper by inoculation in this country, has of late been the following: A thread is drawn through a ripe puſtule, and well moiſtened with the matter: a piece of this thread is inſinuated into a ſuperficial inciſion made in one or both arms, near the part where iſſues are uſually fixed; this thread is covered with a plaiſter, and there left for a day or two. This is the moſt uſual way, though others have been practiſed by ſeveral in the profeſſion.

At preſent, very different methods are purſued; two of which, that vary in ſome reſpects, I have frequently practiſed, and ſhall deſcribe; but the following has been ſo invariably ſucceſsful, as to induce me to give it the preference.

The patient to be infected being in the ſame houſe, and, if no objection is made to it,

it, in the ſame room, with one who has the diſeaſe, a little of the variolous matter is taken from the place of inſertion, if the ſubject is under inoculation; or a puſtule, if in the natural way, on the point of a lancet, ſo that both ſides of the point are moiſtened.

With this lancet an inciſion is made in that part of the arm where iſſues are uſually placed, deep enough to paſs through the ſcarf ſkin, and juſt to touch the ſkin itſelf, and in length as ſhort as poſſible, not more than one eighth of an inch.

The little wound being then ſtretched open between the finger and thumb of the operator, the inciſion is moiſtened with the matter, by gently touching it with the flat ſide of the infected lancet. This operation is generally performed in both arms, and ſometimes in two places in one arm, a little diſtant from each other. For as I have not obſerved any inconvenience from two or three inciſions, I ſeldom truſt to one; that neither I nor my patient may be under any doubt about the ſucceſs of the

the operation from its being performed in one place only.

I have alſo tried the following method, with the ſame ſucceſs as that above deſcribed, but do not ſo well approve of it, becauſe I have been credibly informed that it has ſometimes failed in the practice of others. A lancet being moiſtened with the various fluid in the ſame manner as in the other, is gently introduced, in an oblique manner, between the ſcarf and true ſkin, and the finger of the operator is applied on the point, in order to wipe off the infection from the lancet, when it is withdrawn. In this method, as well as in the former, a little blood will ſometimes appear; but I neither draw blood with deſign, nor do I think it neceſſary to wipe it off before the matter is introduced.

In both theſe ways of inoculating, neither plaiſter, bandage, or covering is applied, or in any reſpect neceſſary.

Theſe methods of producing the diſeaſe never once have failed me; and experience has ſufficiently proved, that there is no danger from additional infection by the natural diſeaſe at the ſame time. I therefore make no ſcruple of having the perſon to be inoculated, and the patient from whom the infection is to be taken, in the ſame room; nor have ever perceived any ill conſequences attending it. But I adviſe the inoculated patients (though perhaps there is no neceſſity for that precaution) to be afterwards ſeparated from places of infection till certain ſigns of ſucceſs appear, when all reſtraint is removed, there being no danger from accumulation.

It ſeems to be of no conſequence whether the infecting matter be taken from the natural or inoculated ſmall-pox: I have uſed both, and never have been able to diſcover the leaſt difference, either in point of certainty of infection, the progreſs, or the event: and therefore I take the infection from either, as opportunity offers, or at the option of my patients or their friends.

Nor

Nor is it of conſequence whether the matter be taken before, or at the criſis of, the diſtemper. It is, I believe, generally ſuppoſed, that the ſmall-pox is not infectious till after the matter has acquired a certain degree of maturity; and in the common method of inoculation, this is much attended to; and when the operation has failed, it has commonly been aſcribed to the unripeneſs of the matter.

But it appears very clearly from the preſent practice of inoculation, that ſo ſoon as any moiſture can be taken from the infected part of an inoculated patient, previous to the appearance of any puſtules, and even previous to the eruptive fever, this moiſture is capable of communicating the ſmall-pox with the utmoſt certainty. I have taken a little clear fluid from the elevated pellicle on the inciſed part, even ſo early as the fourth day after the operation; and have at other times uſed matter fully digeſted at the criſis, with equal ſucceſs. I chuſe, however, in general, to take matter for infection during the fever of erup-

tion, as I ſuppoſe it at that time to have its utmoſt activity.

In all caſes, when I take matter from an inoculated perſon, it is from the place where it was inſerted; as I am always ſure to find infection there if the diſeaſe ſucceeds, and always of ſufficient energy.

It may appear ſtrange that no bandage, dreſſing, or application whatſoever, is made uſe of to the part infected; but that the moſt ſimple inciſion being made, and moiſtened with the ſmalleſt particle of the recent fluid matter, the whole is committed to nature. This method is however perfectly right, becauſe the application of either plaiſter or unguent, as is the uſual practice, will occaſion an inflammation on ſome ſkins, and in all tend to diſguiſe the natural appearance of the inciſion, and prevent our forming a proper judgment of the progreſs of the infection; which will afterwards appear to be a matter of much importance.

If neither an inoculated patient is at hand, nor any one in the neighbourhood has a diſtinct kind of the natural diſeaſe, a thread may be uſed as in the common manner, provided the thread be very recently infected; but I think it ought to be uſed as ſoon as poſſible after being charged with infecting matter.

The following method of introducing the diſeaſe has likewiſe been found effectual; but I have never practiſed it myſelf. Dip the point of a lancet in variolous matter; let it be held in the air till it is dry; after which it may be cloſed and kept in the common caſe without any further care; and with this prepared lancet raiſe the ſcarf ſkin obliquely, and keep the lancet a little time in motion between the two ſkins, that part of the matter may be mixed with the animal juices; then withdraw the lancet, and leave the inciſion uncovered as before.

Of the Progress of Infection.

HITHERTO very little regard ſeems to have been paid to the progreſs of infection diſcoverable by the part where the operation was performed. But it will appear in the ſequel, that an attention to this circumſtance is very neceſſary, becauſe a juſt prognoſtic may thence be ſometimes formed of the future ſtate of the diſtemper, and indications may be taken from the different appearances on the arm, that will enable us to prevent inconveniencies.

The former method of covering the place of inciſion with a plaiſter, and continuing upon it dreſſings of one ſort or another, prevented much uſeful information of this kind. They prevented any judgment by the touch, and ſometimes rendered that by the eye equivocal.

The day after the operation is performed, though it takes effect, little alteration is diſcoverable. On the ſecond day, if the part is viewed

viewed with a lens, there generally appears a kind of orange-coloured ſtain about the inciſion, and the ſurrounding ſkin ſeems to contract. At this time I uſually give the following medicine at going to bed, either mixed with a little of any kind of jelly, or more frequently made into a pill.

Calomel and compound powder of crabs claws, of each 3 grains, emetic tartar $\frac{1}{10}$ of a grain.

A quantity of this medicine ſhould be carefully prepared at once, in order to make the diviſion more exact.

On the fourth or fifth day, upon applying the finger, a hardneſs is to be felt by the touch. The patient perceives an itching on the part, which appears ſlightly inflamed; and under a kind of veſication is ſeen a little clear fluid; the part reſembling a ſuperficial burn. About the ſixth, moſt commonly, ſome pain and ſtiffneſs is felt in the axilla; and this is a very pleaſing ſymptom, as it not only foretells the near approach of the eruptive ſymptoms, but is a ſign of a favourable progreſs

greſs of the diſeaſe. Sometimes on the ſeventh, oftener on the eighth day, ſymptoms of the eruptive fever appear; ſuch as ſlight remitting pains in the head and back, ſucceeded by tranſient ſhiverings and alternate heats, which in a greater or leſs degree continue till the eruption is perfected. At this time alſo it is uſual for the patient to complain of a very diſagreeable taſte in his mouth, the breath is always fetid, and the ſmell different from what I have ever obſerved in any caſe, except in the variolous eruptive fever.

The inflammation in the arms at this time ſpreads faſt; and upon viewing it with a good glaſs, the inciſion, for the moſt part, appears ſurrounded with an infinite number of ſmall confluent puſtules, which increaſe in ſize and extent as the diſeaſe advances. On the tenth or eleventh day, a circular or oval efflorescence is uſually diſcovered, ſurrounding the inciſion, and extending ſometimes near half round the arm, but more frequently to about the ſize of a ſhilling; and being under the cuticle, is ſmooth to the touch, and not painful. This appearance is alſo a very pleaſing one; it ac-

companies eruption; every diſagreeable ſymptom ceaſes; and at the ſame time it certainly indicates the whole affair to be over; the pain and ſtiffneſs in the axilla alſo going off.

The feveriſh ſymptoms are for the moſt part ſo mild, as ſeldom to require any medicinal aſſiſtance, except a repetition of the ſame medicine that was directed on the ſecond night after the operation; and on the following morning this laxative draught, to procure three or four ſtools;

Infuſion of ſena two ounces, manna half an ounce, tincture of jalap two drams.

Theſe are given as ſoon as the eruptive ſymptoms are perceivable, if they ſeem to indicate any uncommon degree of vehemence.

It has been obſerved, that by attending to the progreſs of infection, we may be able to prognoſticate, with ſome degree of certainty, the event of the diſtemper in general. Particular incidents will ever happen,

but not ſufficient to deſtroy the propriety of general rules.

If the appearances already deſcribed are obſerved early, a very favourable event is implied: but it happens in ſome caſes, although it may be perceived that the inoculation has ſucceeded, yet it is barely perceptible; the colour about the wound remaining pale, inſtead of changing to red or inflamed; the edges of the inciſion ſpread but little, they remain flat, ſcarcely riſing at all, and are attended neither with itching or uneaſineſs of any kind. Nay, ſometimes on the fifth, and even the ſixth day, the alteration is ſo little, as to make it doubtful whether the infection has taken place.

When matters are in this ſtate, the appearance is unfavourable, and implies a late and more untoward diſeaſe: to prevent which, I direct the powder or pill to be taken each night; and in caſe it fails to operate by ſtool, or there is the leaſt diſpoſition to coſtiveneſs, an ounce of Glauber's ſalts, or more commonly the laxative draught already mentioned,

tioned, is given in the morning, once or twice, as the caſe may require. This courſe forwards the inflammation, which I always wiſh to ſee; as I have conſtantly obſerved, that an early progreſs on the arm, and an early commencement of the eruptive complaints, portend that the diſtemper will be mild and favourable; and on the contrary, where both are late, the ſymptoms are uſually more irregular and untoward.

Being now arrived at the moſt intereſting period of this diſtemper, the eruption, a period in which the preſent practice I am about to recommend differs eſſentially from the method heretofore in uſe, and on the right management of which much depends, it will be requiſite to give clear and explicit directions on this head, and to adviſe their being purſued with firmneſs and moderation.

Inſtead of confining the patient to his bed, or his room, when the ſymptoms of the eruptive fever come on, he is directed, as ſoon as the purging medicine has operated, to keep abroad in the open air, be it ever ſo

cold, as much as he can bear, and to drink cold water, if thirſty; always taking care not to ſtand ſtill, but to walk about moderately while abroad.

This treatment indeed ſeems as hard at firſt to the patients, as it muſt appear ſingular to the reader; but the effects are ſo ſalutary, and ſo conſtantly confirmed by experience, and an eaſy progreſs through every ſtage of the diſeaſe depends ſo much upon it, that I admit of no exception, unleſs the weather be extremely ſevere, and the conſtitution very delicate. And it is indiſputably true, that in the few inſtances where the ſymptoms of eruption have run very high, the patients dreading any motion, and fearing the cold as the greateſt evil, yet, when under theſe circumſtances, I have perſuaded them to riſe out of bed, and go out of doors, though led ſometimes by two aſſiſtants, and have allowed them to drink as much cold water as they choſe, they have not ſuffered the leaſt ſiniſter accident. On the contrary, after they have been prevailed on, although reluctantly, to comply with theſe directions,

directions, they find their ſpirits revived; an inclination for nouriſhment returns; they reſt well; a gentle ſweat ſucceeds, accompanied with a favourable eruption; and the fever ſeems wholly to be extinguiſhed.

In general, the complaints in this ſtate are very moderate, and attended with ſo little illneſs, that the patient eats and ſleeps well the whole time: a few puſtules appear, ſometimes equally diſperſed; ſometimes the inflammations on the arms ſpread, and are ſurrounded with a few puſtules, which gradually advance to maturity; during which time, for the moſt part, the eruption proceeds kindly, and there is much more difficulty to reſtrain the patients within due bounds, and prevent their mixing with the public, and ſpreading the infection (which I always endeavour to prevent) than there was at firſt to prevail upon them to go abroad. During this time medicine is ſeldom wanted; the cool air ſeems the beſt cordial; and if any uncommon languor happens, a baſon of ſmall broth, or a glaſs of wine, is allowed in the day, or ſome white-wine whey at bed

time; which are indeed at any time allowed to tender, aged, or weakly perſons.

With theſe exceptions, they have hitherto been kept very ſcrupulouſly to the diet at firſt directed. But after the eruption is completed, if occaſion requires, they are indulged in a little well-boiled meat of the lighteſt kind, as chicken, veal, or mutton.

The regimen above-mentioned, the cooling alterative purges, and the free uſe of cool air at the ſeaſon of eruption, almoſt univerſally prevent either alarming ſymptoms, or a large crop of puſtules. A few I have ſeen with ſuch a quantity of puſtules, though diſtinct, that I have neither adviſed nor allowed them to go out of the houſe. But the generality of my patients, when the eruptions are few, amuſe themſelves abroad within proper limits, with the puſtules out upon them.

I neither enjoin this, nor maintain that it is neceſſary; but have not been able to obſerve that any inconvenience has ariſen from it. And how ſtrange ſoever it may appear, it is true, that thoſe who are moſt adventurous,

adventurous, ſeem to be in better ſpirits, and more free from complaints, than others who are inclined to keep within-doors. And indeed, ſuch of my patients as have received the benefit of this treatment themſelves, ſeldom permit thoſe who are in the hardeſt part of the diſtemper, the eruptive, to keep much in the houſe; but encourage them to bear a little hardſhip, by recounting to them the benefit they have reaped from the method they are recommending.

Thoſe who have the diſeaſe in the ſlighteſt manner firſt deſcribed, viz. without any appearance of eruption but on the inoculated part, are ſoon allowed to go about their uſual affairs; and many inſtances have happened of very induſtrious poor men, who have inſtantly returned to their daily labour, with a caution not to intermix with thoſe who have not had the diſtemper, for fear of ſpreading it, and with directions to take two or three times of the purge already directed, or as many doſes of Glauber's ſalts. Thoſe who have it in a greater degree, are confined ſomewhat longer; and a very mild laxative is now-and-then exhibited, if there is the leaſt diſ-

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poſition to coſtiveneſs; as the progreſs to maturation appears rather to be advanced than retarded by the operation.

When the maturation is completed, and it is evident we have nothing further to fear from the diſtemper, I allow my patients gradually to change their courſe of diet, from the perfectly cooling kind, to one a little more generous; recommending ſtrictly to all a return to their ordinary animal diet with much caution and reſtraint upon their appetites, both in reſpect to food and fermented liquors.

It is not often that we are under a neceſſity of making any application to the part where the operation was performed: it moſt commonly heals up, and is covered with a ſcab, about the time when, in a natural way, all the pocks would have been dried up: but there are ſome caſes wherein the inciſions continue to diſcharge a purulent matter longer; in theſe inſtances it is ſufficient to cover the place with the white cerate, or any other mild emplaſtic ſubſtance, which may at once prevent the linen from adhering

ing to the ſore, and defend it from the air. And as in theſe caſes the part remains unhealed from ſome peculiar cauſe in the habit, it will be neceſſary to give gentle purgatives, and proper alteratives, as particular exigencies may require.

OF ANOMALOUS SYMPTOMS AND APPEARANCES.

IN the preceding pages I have deſcribed the uſual progreſs of the ſmall-pox from the inoculation. There are, however, deviations from this courſe, and indeed not a few; ſome of the moſt material of which, as they may embarraſs the inexperienced, and create a real difficulty, as well as apprehenſions of danger, it ſeems neceſſary to deſcribe, and the means that experience has ſuggeſted to remove theſe ſymptoms, or the doubts reſpecting the event.

The firſt I ſhall take notice of, and which, though it very rarely happens, ſometimes gives much trouble, is great ſickneſs, accompanied with vomiting, coming on during the eruptive ſtate of the diſtemper. For this complaint it is always neceſſary in the firſt

place to clear the ſtomach; which may be effected, either by ordering the patient to drink plentifully of warm liquids to promote vomiting; or, perhaps more properly, by giving one grain of emetic tartar to an adult, mixed with ten grains of compound powder of crabs claws; taking care to leſſen the doſe for very young and weak ſubjects.

This uſually throws off ſome bilious matter by vomit, ſometimes procures ſtools, or occaſions a moderate ſweat, and generally adminiſters relief. If, however, no ſtools ſhould follow from this medicine, and the ſickneſs ſhould remain, a gentle laxative almoſt certainly procures a reſpite, and the appearance of the eruption removes the complaint intirely.

Another deviation, of ſtill more conſequence, which ſometimes happens towards the time of the eruption, and is often, though not always, accompanied with great ſickneſs, is an eryſipelatous efflorescence. This, if it ſhews itſelf on the

ſkin partially, and here and there in patches, is not very alarming, and ſoon wears off.

But ſometimes the whole ſurface of the ſkin is covered with a raſh intimately mixed with the variolous eruption, and ſo much reſembling the moſt malignant kind of confluent ſmall-pox, as ſcarcely to be diſtinguiſhed from it: and indeed ſome caſes of this ſort have happened, where, being accompanied with petechiæ and livid ſpots, I have been much alarmed: not being able, by inſpection only, though aſſiſted by glaſſes, to determine whether what I ſaw was an inoffenſive raſh, or tokens of the greateſt malignity. Very ſtrict attention, however, has enabled me to diſtinguiſh the difference clearly; and the following obſervations will, I hope, tend to relieve others from the anxiety they would feel upon ſuch an appearance.

The real and eſſential difference then is to be gathered from the concomitant ſymptoms. In the eryſipelatous or variolous raſh, there is not ſo much fever,

nor

nor is the reſtleſſneſs, or pain of the head or loins, ſo conſiderable; neither is there that general proſtration of ſtrength, which are almoſt never-failing attendants on a confluent ſmall-pox, eſpecially when accompanied with ſuch putrid appearances. Beſides, upon a careful examination, there may ſometimes be diſcerned a few diſtinct puſtules, larger than the reſt, mixed with the raſh, which are indeed the real ſmall-pox. In theſe caſes the patients are ordered to refrain from cold water, or any thing cold, and to keep within doors, but not to go to bed. If any ſickneſs yet remains, a little white-wine whey, or other moderate cordial, is adviſed: and this method has hitherto been ſo ſucceſsful, as to prevent any alarming complaint. After two or three days, the ſkin from a florid changes to a duſky colour, a few diſtinct puſtules remain, and advance properly to maturation, without any further trouble enſuing from this formidable appearance *.

* See Caſes XIII, XIV.

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This raſh has been often miſtaken for the confluence it ſo nearly reſembles, and has afforded occaſion for ſome practitioners, either ignorantly or diſingenuouſly, to pretend, that after a very copious eruption of the confluent pox, they can by a ſpecific medicine diſcharge the major part of the puſtules, leaving only as many diſtinct ones as may ſatisfy the patient that he has the diſeaſe. Such pretenſions have certainly been made; and the patient, who has been deceived in this manner, has contributed to ſpread reports untrue as to the fact, and probably prejudicial to the health of others, who in like circumſtances have been ſent abroad, and other cool means purſued, by which the raſh has been repelled, and the bad effects experienced afterwards.

I muſt alſo obſerve here, that raſhes of the kind I have deſcribed frequently happen during the preparation (whether owing to the regimen, or medicine, or both, I cannot ſay) and cauſe the operation to be poſtponed: but I have obſerved, that in ſuch caſes

caſes they are apt to return at the time of the eruption of the ſmall-pox.

In general, as has been already ſaid, the ſymptoms which precede eruption commence at the end of the ſeventh or in the eighth day incluſive from the operation; but it often happens that they appear much ſooner, and ſometimes much later, than the time above-mentioned. For inſtance, I have ſeen ſome caſes wherein the diſeaſe has happened ſo ſuddenly after infection, and with ſo little complaint or uneaſineſs, that the whole affair has been terminated, purges taken, and the patient returned home perfectly well in a week's time; before others, inoculated at the ſame time, from the ſame patient, and under the ſame circumſtances, have begun to complain.

In this caſe the inoculated part ſhews early certain marks of infection, ſometimes on the very next day, or the day after, when the inciſion will often appear conſiderably inflamed and elevated. The patient about this time frequently makes ſome of the following

lowing complaints, viz. chillineſs, itchings, and ſmall pricking pains in the part, and ſometimes on the ſhoulder, giddineſs, drowſineſs, and a ſlight head-ach, ſometimes attended with a feveriſh heat, but often without any: the account they themſelves give of their feelings, is, in ſome, as if they had drank too much, and in others, as if they had caught a cold. Theſe complaints ſeldom laſt twenty-four hours, often not ſo long, and with frequent remiſſions, and never, that I remember, riſe to a degree that requires confinement. The inflammation on the arm at the time of the complaints advances apace, and feels hard to the touch; but upon their wearing off, the inflamed appearances gradually leſſen, and the part dries to a common ſmall ſcab; the ſkin, that was before red, turns livid, and the party is quite well, and nothing more heard of the diſtemper *. In ſome inſtances theſe ſymptoms attack much later; even on the ſeventh or eighth day, when an eruption might be expected in conſequence

* See Caſe I.—XII.

of

of them, yet none appears; but the arm gets well very ſoon, and the diſeaſe is at an end.

In this irregular ſort of the diſorder there have, however, been ſome examples where a few eruptions have appeared, and probably in conſequence of the inoculation; yet the puſtules have not looked like the true pocks, nor maturated like them, nor laſted longer than three days; about which time they, for the moſt part, have dried away.

As I find it difficult to deſcribe the variety and irregularity of ſymptoms that occur in this ſhort way of having the diſtemper, I will give ſome caſes, by way of illuſtrating the matter more to the reader's ſatisfaction.

When ſubjects of this ſort firſt occurred in my practice, I was in doubt whether they were quite ſecure from any future attacks of the diſtemper; and in order to try whether they were ſo or not, I

inoculated them a ſecond time, and cauſed them to aſſociate with perſons in every ſtage of the diſeaſe, and to try all other means of catching the infection; and this method has been practiſed with the generality of ſuch patients ever ſince, yet without a ſingle inſtance of its producing any diſorder; ſo that I now make no ſcruple of pronouncing them perfectly ſafe: and experience has enabled me, for the moſt part, to foretell, in two or three days after the operation, when the diſeaſe will paſs in this ſlight manner.

Upon the ſecond inoculation, however, the inciſed parts are commonly inflamed for a day or two, juſt in the ſame manner as I have, in numerous inſtances, found them to be, as well in thoſe who, though certain of having had the ſmall-pox in the natural way, have ſubmitted to be inoculated merely for the experiment ſake, that the reſult might be obſerved, as in others, who, being doubtful whether they have had it or not, have been inoculated, in order to be ſatisfied. But in all ſuch caſes the parts

ſoon

ſoon became well; nor did any of thoſe appearances which have been deſcribed as the conſtant attendants on inoculation, as pain in the head, giddineſs, marks of infection in the arm, &c. enſue; nor can they ever be produced upon a perſon who has, had the ſmall-pox before, either in the natural way or by inoculation; and therefore it cannot with reaſon be ſuggeſted, that the patients, whom I ſuppoſe to get through the diſeaſe in the very ſlight manner above deſcribed, may poſſibly have had the ſmall-pox unobſerved in ſome former part of their lives.

Another irregularity deſerving notice here, is, that ſometimes, upon the abatement of the fever and other ſymptoms, after the appearance of ſeveral puſtules, and when the eruptive ſtage of the diſeaſe ſeems completed, it nevertheleſs happens that freſh eruptions come out, and continue doing ſo daily, for 4, 5, or even 6 days ſucceſſively; preceded ſometimes by a ſlight pain in the head, though more frequently they appear without any new diſturbance. Theſe are generally few in number, ſhort-liv'd, and

ſeldom come to maturity. But I have ſeen four caſes, in each of which, after a ceſſation of complaints, and an appearance of few puſtules, the eruptive ſtage of the diſeaſe was thought to be over, yet in two or three days a freſh fit of fever has attacked the patients, and after a ſhort illneſs a quantity of new puſtules has broke out, far exceeding the firſt number, and theſe remained, and maturated completely. Inſtances of this kind may be found among the caſes annexed *.

Some of my own patients, and, as I am credibly informed, of other inoculators in this way, have had conſiderable eruptions of this kind after they returned home; which have probably given occaſion for the reports of ſeveral having had the diſeaſe again in the natural way after inoculation. But that theſe reports are ill-grounded, will appear from this obſervation, to wit, that in all the caſes of this ſort which have occurred in my own practice, or, as far as I can learn, in that of others, the ſecond or latter crop of puſtules has always hap-

* Vide Caſes 15, 16, 17, 18.

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pened within the time uſually allowed for the progreſs of the ſmall-pox from inoculation, and before the inflammation on the arm has ceaſed, and ſooner than they could be ſuppoſed to be produced by infection taken in the natural way; and whenever it has happened, it has been to perſons in whom, after a ſlight eruption, and abatement of ſymptoms, the diſeaſe has prematurely been judged to be quite over, and they have therefore been permitted to return to their families.

It will doubtleſs be aſked, how caſes of this kind ſhould ever happen among thoſe who return home as cured? To which I anſwer, That it is no unuſual thing for induſtrious men, after a ſlight eruption, and ceſſation of all complaints, to aſk leave to return home to their occupations and families; and where it has been thought that no danger would accrue to others, their requeſt has been often granted; for the phyſician no more than the patient can foreſee when theſe accidents ſhall follow; but it may be obſerved here, that in all theſe caſes of my own knowledge, very repellent

pellent methods have been uſed in the beginning; and a more generous diet, or greater exerciſe afterwards, has ſeemed to contribute to this ſecondary erruption.

Before I conclude this chapter, it may be proper to obſerve, that inoculated patients, in ſome ſtage or other of the diſeaſe, may poſſibly be attacked with diſeaſes altogether independant of the ſmall-pox; ſuch, for inſtance, as may ariſe from worms, or be the epidemick of the ſeaſon, or ſuch as the patient may by conſtitution be ſubject to; and ſome caſes of this ſort will be found among thoſe annexed *

* Vide Caſes 17, 19, 21.

Consequences of this Method of Inoculation.

I Shall now conſider the conſequences that follow this very cool and repelling method, and how far the patient's future ſtate of health may be affected by a practice ſo new, and oppoſite to all eſtabliſhed theory.

I need not ſay how much it has been thought right, in moſt or all eruptive complaints, eſpecially in the ſmall-pox, to forward, by every gentle means, the efforts of nature in producing an eruption: and on the contrary, how dangerous to check it, either by cold air, cold drink, or any conſiderable evacuations; or that the uſe of warm diluents therefore, and the lying in bed, eſpecially if the fever and ſymptoms run high, or at leaſt confining to the houſe, have been generally approved and recommended for the purpoſe. But when a practice ſo foreign to this, and almoſt totally different, is inculcated, it is no wonder if mens minds are alarmed, and thoſe evils

expected

expected that were ſuppoſed to be the unavoidable conſequences of it.

Experience, however, and inſtances of ſo many thouſands ſucceeding by this method, without any conſiderable bad effects from it, either immediate or remote, are irreſiſtible arguments for its ſupport and juſtification, and the beſt proof of its utility and ſafety. I have ſaid, without any conſiderable bad effects; for in reality I have ſeen none that deſerve that name, if compared with what ſometimes follow the natural ſmall-pox, or frequently happen after the old method of inoculation.

Every one who has had any ſhare in this practice according to the common or old methods, will allow, that after paſſing through the diſeaſe in a very favourable manner, their patients (children eſpecially) were frequently liable to abſceſſes in the axilla and other parts, tedious ophthalmies, and troubleſome ulcerations in the place of inſertion; which though they could not be foreſeen or prevented, yet frequently gave more pain and vexation to the pa-

tients, and trouble to the operator, than the diſeaſe itſelf had done: whereas on inquiry into the fate of thoſe who have been treated in the cool way, or this new method, I can ſay, that in more than 1500 there has been only one who has had ſo much as a boil in the axilla; and that was in a child who had an iſſue in the ſame arm, and which was at that time dried up; and I have only ſeen two very ſmall ſuperficial boils in others near the place of inſertion; and theſe ſeemed rather to be occaſioned by an irritation from the diſcharge, than from any other cauſe, and were all ſoon healed with very little trouble.

In a few inſtances alſo there has been a ſlough in the inciſed part, which has made a ſore of ſhort duration; but not one inſtance of an ulcer of any continuance. Such little breakings out too, and ſcabs, as are frequently known to ſucceed the mild natural ſmall-pox, ſometimes, though rarely, happen to thoſe inoculated this way; and as they are of the ſame little conſequence, are generally cured by the ſame method of a few gentle purges.

With regard to ophthalmies from this kind of practice, I have never had an example of one truly deſerving that name; the coats of the eye have been a little inflamed in a very few, but they ſoon became clear, without any means uſed for that purpoſe. And I know but two caſes where I thought the inflammation great enough to require bleeding, and not one where a bliſter was neceſſary. So that theſe complaints, heretofore ſo frequent and grievous, ſeem by this new method to be much reduced: a circumſtance which, if it does not amount to a proof, admits at leaſt of a fair conjecture, that the ſtate of health is better here, than where thoſe remains of putridity are ſo evidently exiſting in the habit.

Diſcoveries in phyſic, as in every other ſcience, are in their infancy liable to cenſure and oppoſition; and as the preſent ſyſtem of inoculation is of ſo extraordinary a kind, it would not be ſtrange if a greater portion of both than uſual ſhould fall to its ſhare. Accordingly, ſince no charge of fatality during the diſeaſe, nor inſtances of bad

bad effects ſoon after the recovery, can be produced, recourſe has been had to other meaſures to calumniate and diſcredit the practice. It would be tedious to enter into a detail of the many falſe and ridiculous reports that have been ſpread againſt it. In general, the conſtitution is ſaid to be injured; and the dreadful effects are to appear at ſome diſtant period; but at what time, or what kind of diſeaſe, nobody pretends to determine. To theſe general accuſations it cannot be expected I ſhould give other than a general anſwer; which is, that from the ſtricteſt obſervation and inquiry I have been able to make, thoſe who have been inoculated in this way, have continued to enjoy as good a ſtate of health as their neighbours; nay, many of them have thought their conſtitutions better after the proceſs than before.

But it ſeems as if theſe oppoſers expected that inoculation ſhould not only free the inoculated from the ſmall pox, and any early bad effects, but muſt preſerve them too from all other diſorders through the reſt of their lives. To ſuch I can ſay nothing; but if

others, who are more reaſonable, require further ſatisfaction as to the conſequences of this method, I muſt deſire them to make inquiry of thoſe who have been inoculated under my direction.

Another charge againſt this method of inoculation is, that ſome have had the diſtemper afterwards in the natural way. What I have ſaid under the head of anomalous ſmall-pox, will I believe ſufficiently account for the appearances which have occaſioned theſe falſe reports; and if that does not ſatisfy, I can only add this poſitive declaration, that nothing of the kind has ever happened to any patient inoculated by me; and I firmly believe, no one has ever had, or can have, the diſtemper a ſecond time, either in the natural way or from inoculation.

The

The EFFECTS of this TREATMENT applied to the natural SMALL-POX.

THE very great relief which perſons under inoculation experience from freſh air, cold water, and evacuations by ſtool, during the fever preceding eruption, ſoon determined me to make trial how far the like treatment might be uſeful to thoſe who might be ſeized with the ſmall-pox in the natural way; more eſpecially in ſuch caſes, where, from the violence of the ſymptoms, a confluent kind was juſtly to be apprehended.

But opportunities of making experiments of this ſort in a ſatisfactory manner are rare. Firſt, becauſe a phyſician, or even medical aſſiſtance of any kind, is not often called in till the eruption ſhews itſelf; when it is too late to expect all the good effects that might be hoped for from an earlier trial of this method; and ſecondly, becauſe the firſt attack of the ſmall-pox is ſo much like the beginning of ſome other fevers as not eaſily to be diſtinguiſhed; though a diligent attention

tion to the ſymptoms, will generally, if we are called in time, enable us to form a pretty certain prognoſtic. For if the attack of the cold fit be pretty ſevere, and the ſubſequent fever unuſually high; if a nauſea and vomiting ſucceed, together with great pains in the head, back, and loins, eſpecially the laſt; if a delirium, great reſtleſſneſs, diſagreeable taſte in the mouth, and a peculiar fœtid ſmell in the breath, or even if ſeveral of theſe ſymptoms are obſerved, the ſmall-pox may with great reaſon be expected; and if upon inquiry, which ſhould always be made, it appears that the patient has been in the way of infection, there will be little reaſon to doubt of it.

It may be objected, that notwithſtanding the cloſeſt attention and inquiry, ſymptoms of the like nature may precede fevers of other kinds; to which I anſwer, that ſome ſuch caſes, though few, have happened; and the treatment I am about to recommend has been practiſed not only without prejudice to the patient, but manifeſtly to his benefit.

But waving for the preſent all conſiderations reſpecting the treatment of fevers in

general, I ſhall only relate what has occurred to me in reſpect to the natural ſmall-pox.

In ſeveral inſtances where I have been concerned, and where the ſymptoms and other concurring circumſtances induced me to think the ſmall-pox was at hand, I have directed the like management as I recommend to inoculated patients *.

I have been called alſo to others at the time of eruption, where ſome puſtules having already appeared, made the matter clear; and in every caſe of this kind, I have endeavoured to get the ſick perſon into the open air, have generally given the mercurial and antimonial pill, and directed a laxative to be taken ſome hours after it, in order to procure three or four ſtools; and this method I have more particularly enjoined, and ſometimes repeated where the kind has appeared to be bad, and where little or no relief has been found from the partial eruption; the ſymptoms continuing to be ſuch as portended great danger. I have followed the ſame method during every

* See Caſes XXIII. XXIV. XXVIII.

part

part of the eruptive fever, intending thereby to abate its violence, to check the eruption, and prevent the conflux, and conſequently the danger *.

The ſucceſs attending this practice has hitherto exceeded my expectations; though it muſt be confeſſed, that as the ſymptoms run much higher in the natural, than they are found to do in the inoculated diſeaſe, the relief has not been ſo conſiderable; and I have found it extremely difficult to perſuade ſuch whoſe complaints have been very ſevere to quit their beds, and attempt to go abroad: indeed the exceeding feeble ſtate they are ſometimes in, ſufficiently ſhews that great reſolution is requiſite to put this in practice.

Among thoſe who have been treated in this manner under my own care and inſpection, not one has died, and the number amounts to about 40. Some of the moſt remarkable caſes will be ſubjoined,

* See Caſes XXV. XXVI. XXVII. XXIX.

which

which will more ſatisfactorily explain the practice, and demonſtrate its ſucceſs.

The immediate ſenſible effects of going into the open air, are a very great abatement of heat upon the whole ſurface of the ſkin; which, though but juſt before intenſely hot, generally in a ſhort time feels not much warmer than that of a perſon in health. The pulſe, from being very ſtrong, full, and quick, becomes leſs hard and full, but continues quick; and I have ſometimes obſerved it to intermit; which, however alarming it may ſeem, is not a dangerous ſymptom.

The pain in the head is always relieved, but that in the back and loins does not abate in proportion; and although it coſts no little pain and trouble to perſiſt in moving abroad under ſuch circumſtances, attended for the moſt part with great laſſitude, yet the patients are ſenſible of the benefits they receive: and entertaining a good opinion of the uſefulneſs of the practice, commonly

behave with great reſolution; and what is very encouraging, in general think themſelves ſtronger.

Upon going within doors to reſt themſelves, the pain in the head grows worſe, but is again relieved ſo ſoon as they return into the air.

The effects of the medicines are uſually theſe:

If there has been much ſickneſs at ſtomach, a vomiting frequently happens ſoon after the pill: this the patients ſhould promote by drinking plentifully of ſome warm diluents; and till the fatigue occaſioned by it is over, they certainly ought not to go abroad.

By this operation, and the ſtools which ſucceed, the feveriſh and internal heat, thirſt, ſickneſs, and pains, are for the moſt part conſiderably abated. The patients commonly complain of being very low and faint after theſe evacuations; but the moſt urgent

urgent ſymptoms being alleviated thereby, a diſpoſition to receive nouriſhment hourly increaſes. They are then allowed to drink thin mutton or chicken broth, milk pottage, or tea, as the moſt grateful and refreſhing cordial ſuſtenance they can take. Sleep likewiſe now moſt commonly comes on ſpontaneouſly. But they are only permitted to enjoy this refreſhment by day upon the bed; for I always diſſuade them from going into it till night.

From the foregoing account it appears, that the fever preceding eruption, and the moſt grievous ſymptoms accompanying it, are often greatly mitigated by this practice; and I will here add, that the eruption is moſt certainly retarded, that is, it does not appear ſo ſoon after the attack of the diſeaſe, nor come out ſo precipitately when it has begun to appear, as it ſeemed likely to have done if the natural progreſs had not been interrupted; an effect, which, however dangerous it may have been thought, may be produced with the utmoſt ſafety, and clearly ſhews the utility of the practice.

For it is evident from experience, that the later the eruption ſhews itſelf after the beginning of the diſeaſe, and the ſlower it comes out, the more mild and favourable is the ſubſequent diſorder. And I am of opinion, that the eruption is not only retarded and protracted by this method, but likewiſe that it is in ſome degree repreſſed; having had ſtrong reaſons to apprehend in ſeveral inſtances, that the number of puſtules which appeared at firſt, were by ſuch repreſſion actually diminiſhed; and thoſe that remained ſeemed larger, and of a milder kind.

What has hitherto been ſaid on the ſubject, relates only to the diſeaſe in its eruptive ſtate, which is certainly a very intereſting period; but that which follows is not leſs ſo, though not always attended to ſo much as it deſerves; for when the eruption is compleated, the ſymptoms abate, the patients ſeem relieved, and often to ſuch a degree, that both they, and their attendants, flatter themſelves with hopes of a happy event, and think it unneceſſary to apply

apply for any medical aſſiſtance; yet with all theſe hopeful appearances, the number and kind of the ſmall-pox are frequently ſuch, as would make a judicious practitioner apprehenſive of much danger in the ſubſequent ſtages.

And where the practitioners themſelves may ſee reaſon to doubt of the event, yet few or none of them have attempted, I believe, to do much towards preventing the danger; for, unleſs ſome preſſing ſymptoms call for immediate relief, it is the general practice to wait till maturation comes on, and brings with it ſuch a train of dreadful complaints, as are more than enough to employ, and too often baffle, the beſt abilities.

In this neglected interval, from the eruption being compleated, to the acceſſion of the fever of maturation, and its concomitants (an interval which, in point of duration, is very different in different conſtitutions and kinds of ſmall-pox); I will venture in general to recommend the ſame mercurial antimonial medicine as was preſcribed in the

the eruptive fever, to be repeated at proper intervals, till the maturation advances; at which time it muſt certainly be diſcontinued: and theſe circumſtances can be regulated only by thoſe who attend, according to the urgency of the ſymptoms, and the ſtrength of the patients: a cupful of the following apozem ſhould, if neceſſary, be now-and-then taken after the mercurial medicine, often enough to procure three or four ſtools a day, eſpecially if the patient is coſtive.

Take cream of tartar, two drachms; of manna, one ounce; diſſolve them in one quart of barley water, or the pectoral drink.

How far it may be ſafe or adviſable for the patients to venture out into the open air during this ſtage of the diſeaſe, I will not yet pretend to ſay; but they will certainly be both refreſhed and invigorated, by being kept out of bed as much as they can bear, without being over-fatigued; and by freſh air let in ſometimes through an open window.

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As the violence of the eruptive fever, with its attendant complaints, muſt neceſſarily exhauſt the ſtrength and ſpirits, both ſhould in this interval be recruited, by as much proper nouriſhment (ſuch as has been mentioned in the former part of this chapter) as can be taken down without offending the ſtomach; and alſo, if occaſion requires, with medicines of a cordial and anodyne quality; for this is the time to recover as much ſtrength as poſſible, in order to be better able to encounter and bear the pain and fever, which will moſt certainly happen, as the ſtate of maturation advances.

Medicines, except what have been already mentioned, ſeem at this time unneceſſary; and they would interfere with, and prevent the true reliſh for, food.

But for the beſt method of treating the ſmall-pox in its moſt dangerous ſtage, I mean that of maturation, I muſt refer to the ſeveral learned and eminent practitioners who have profeſſedly written upon the ſubject, whoſe opinions and practice I neither pretend to correct or amend. I ſhall however

however take the liberty to recommend one medicine to be uſed in that ſtage of the diſeaſe, which I have found to abate heat, and allay thirſt, in ſuch a manner as to afford a very pleaſing refreſhment.

Take of the weak ſpirit of vitriol one part, of the ſweet ſpirit of vitriol two parts; mix. Of this the quantity of half an ounce may be added to a quart, or perhaps three pints of barley water, or the pectoral drink, or any other diluent, and to be drank of at pleaſure.

I have at preſent nothing farther to recommend; but what has been ſaid will I preſume be ſufficient, with the caſes annexed (in which the method will be more plainly deſcribed) to juſtify farther trials of the cooling, repelling, and evacuating practice in the beginning, at leaſt, of the natural ſmall-pox, till the eruption is compleated; eſpecially where the phyſician has an opportunity of making the trial before the eruption appears, and can be pretty certain, or has good reaſon to conclude, that his patient's

patient's diſorder is variolous. And the more violent the ſymptoms are in this ſtage of the diſeaſe, the more we ſhould be induced to employ the means which have been attended with ſo much ſucceſs, in the ſame ſtage of the diſeaſe after inoculation.

But it may be aſked, if I was called to a patient in a bad confluent ſmall-pox, and finding the eruption completed, whether in ſuch a caſe I ſhould venture to give and continue the uſe of the alterative and purgative medicine, and adviſe the patient to go out, if he can bear it, into the open air in cold weather, or direct air to be let in through a window even while the mercurial purge may be operating?

Before I give a direct anſwer to this queſtion, let me firſt aſk the moſt experienced practitioner, whether he knows any method of cure which may in bad caſes be ſafely relied on, to avert the impending danger, and ſave his patients? The too well known fatality of all kinds of ſmall-pox, very clearly proves that he does not, and that no ſuch method has yet been diſcovered. And if this be the caſe,

ſurely a bold, and even hazardous practice, is very juſtifiable towards any ſuch unhappy patients, who lie as it were under ſentence of a cruel death, not to be prevented by what are called the regular and uſual methods. But ſtill it may be urged, that no impending danger, however great, can ſufficiently juſtify the trial of any hazardous experiment, unleſs ſupported by ſome degree of reaſon or experience. Happy, indeed, it is, when we have theſe two guides before us; but when they are ſeparated, the latter is certainly moſt to be relied on, and her I have endeavoured hitherto to follow.

For in the practice of inoculation experience has taught me, that after as well as before the eruption, perſons may ſafely take mercurial purges, and go out during their operation (though I have ſeldom adviſed any to do ſo) into the cold air, in inclement weather, without ſuffering the leaſt harm or ſubſequent ill conſequence from it. And by this experience I was led, though with great caution, to try whether the ſame practice might not be ſafely employed in the cure

of

of the natural ſmall-pox, as well as the inoculated; nor have the trials been unſucceſsful; for though among the patients I have treated in this manner, ſome had confluent ſorts, yet were the complaints unuſually moderate throughout the whole progreſs of the diſeaſe, and the maturation was completed, without ſuch troubleſome and alarming ſymptoms and events as might be expected under any other known method of treatment; nor did any ſecondary fever enſue.

I would not, however, be underſtood to entertain ſo good an opinion of this method, as to inſinuate that it will ſave all who have the bad confluent kind; too many of theſe are incurable; but I am not without hopes, that it may give a chance of recovery, hitherto untried, to many; and even if this alterative and evacuating courſe in the early part of the diſeaſe ſhould not ſucceed, ſo as to avert the approaching danger, I think there is great reaſon to ſuppoſe that nouriſhment, cordials, and opiates, which may be wanted in the ſtate of maturation, will be adminiſtered with more advantage and ſecurity after it, than if that method had not been previouſly taken.

It ſeems neceſſary, however, to declare, that nothing which has been ſaid is meant to relate to practice in the bleeding or purple ſmall-pox; though very cold repellent methods may perhaps deſerve to be tried in theſe hitherto fatal caſes, provided it can be done early; but the mercurial evacuating courſe ſeems quite improper.

Upon the whole, what has been ſaid on the natural ſmall-pox, muſt wait the award of time and experience, the only teſts of the utility of any practice; for I have lived long enough to have ſeen ſeveral inſtances where very ingenious and well-meaning men have been greatly miſtaken, by relying too much on the firſt impreſſions made by a few ſucceſsful experiments,

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CONCLUSION.

BEFORE I diſmiſs the ſubject, it may not be improper to give ſome account of the motives that induced me to adopt this method.

During the courſe of many years practice of inoculating in the former uſual method, I generally committed to writing the moſt remarkable occurrences, to have recourſe to. Among theſe, I had recorded ſome caſes, which proved that thoſe who had ſuffered moſt, were in general ſuch as have been kept warm, and nurſed with the greateſt tenderneſs and care. Theſe facts diſpoſed me to think of a cooler manner of treating the diſeaſe, and made me attentive to the reports of ſuch a method having been practiſed in ſome parts of this country with great ſucceſs, though too extravagant at firſt to deſerve credit.

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The reports, however, of this practice ſtill gained ground; and, upon the ſtricteſt enquiry, I found they were for the moſt part true, and that ſuch who were treated in this way, paſſed through the diſtemper in a more favourable manner than my own patients, or thoſe of the moſt able practitioners in the old method of inoculation; alſo that the inoculators in this new way enjoined a ſtricter regimen as to diet, than I had hitherto thought neceſſary; and that they frequently brought their uninfected patients into the preſence of thoſe who had the diſeaſe, and inoculated them immediately with fluid matter, taken on the point of a lancet, and by a very ſlight puncture or inciſion; applying no dreſſing or covering afterwards.

This way of performing the operation pleaſed me, as far as related to the ſlightneſs of the inciſion, and the uſe of freſh matter; for I had (in common with other inoculators) ſometimes failed of infecting, by uſing a thread that had been kept too long in a phial: but the circumſtance of bring-

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ing the perſon to be inoculated into the preſence of one who had the ſmall-pox ſeemed hazardous, leſt there might be an accumulation of infection.

All doubts, however, were at laſt removed by the authenticated accounts that I received of theſe particulars, and of the good ſucceſs that attended the practice; and I began to try it in January 1765; when, after having directed a ſtrict regimen and ſome mercurial purges, I inoculated with fluid matter, proceeding with much circumſpection and attention; my patients being expoſed to the open air in that cold ſeaſon. The great advantage they received from this treatment was ſoon apparent, and more than ſufficient to encourage my continuance in the practice; till repeated experiments induced me to think, that inſtead of ſuppoſing the fever in the ſmall-pox to be the inſtrument employed by nature to ſubdue and expel the variolous poiſon, we ſhould rather conſider it as her greateſt enemy, which, if not vigorouſly reſtrained, is apt to produce much danger; and that

all

all ſuch means ſhould be uſed as are moſt likely to controul its violence, and extinguiſh the too great fervor of the blood. Purſuant to this opinion, beſides keeping my patients in the open air, which I had learned from others, I firſt directed the mercurial and antimonial medicine, and the laxative courſe in the eruptive ſtate; the manner of adminiſtering which, and the ſucceſs attending, has been already related.

It may perhaps appear ſingular that bleeding has neither been once mentioned or directed in the courſe of this work, though by general conſent it is allowed to be the moſt efficacious remedy in all inflammatory caſes. To this I can only ſay, that the regimen and medicine above preſcribed commonly reduce the patients ſo much as to render bleeding unneceſſary. And in the natural ſmall-pox it ſeemed moſt reaſonable to adhere, as ſtrictly as poſſible, to thoſe meaſures which had contributed apparently ſo much towards paſſing ſo eaſily through inoculation. I doubt not, however, that caſes will ariſe,

ariſe, in which bleeding may not only be ſafe, but extremely ſalutary.

It will, I hope, be needleſs to tell the reader, that I have diſcloſed the whole of what I know with certainty relative to this proceſs, as the regimen, medicines, different types of the diſeaſe, the rules of prognoſtic, and various events, &c. are fully and faithfully related, according to the beſt of my judgment and experience. And I believe, if the method now recommended is carefully purſued, it will be found to anſwer with a ſucceſs at leaſt equal to any yet diſcovered. Nevertheleſs it is reaſonable to ſuppoſe, that further experience may produce ſome improvements; yet when it is conſidered how ſhort a time is required for preparation, how few medicines are to be taken, thoſe medicines neither nauſeous in themſelves, nor violent in their operation, of a kind likely to be beneficial to moſt conſtitutions, and hurtful to none, unleſs injudiciouſly adminiſtered, that the diſeaſe is uſually ſo mild as to require little or no confinement (the complaints of far the greater number being,

that they have too little of the diſtemper) and that the diſagreeable conſequences which ſometimes happened after the former method of inoculation are likewiſe by this moſt commonly obviated; I do not ſee that much alteration can be even wiſhed for. That which appears moſt likely to be made, is in ſhortening the time of preparation; for as I have often been obliged to inoculate without any, and have always had the ſame ſucceſs, it has inclined me to think, that much if not the whole of this proceſs may be diſpenſed with, except in very full habits, or where other particular circumſtances may require it. But in all theſe caſes, from the inſertion of the matter to the time of the eruptive complaints, the patients have been kept to a cloſe obſervance of diet, and the uſe of the preparatory medicines, proportioned as well as I could to their condition: for I durſt not, by way of experiment, diſpenſe with the uſe of meaſures that had been hitherto ſo ſucceſsful.

Should it be aſked then, To what particular circumſtance the ſucceſs is owing? I can

can only anſwer, that although the whole proceſs may have ſome ſhare in it, in my opinion it conſiſts chiefly in the method of inoculating with recent fluid matter, and in the management of the patients at the time of eruption, If theſe conjectures ſhould be true, perhaps we ſhould be found to have improved but little upon the judicious Sydenham's cool method of treating the diſeaſe, and the old Greek woman's method of inoculating with fluid matter carried warm in her ſervant's boſom.

CASES.

CASE I.

Nov. 23d. A VERY ſtrong, fat, middle-aged man was inoculated with fluid matter, from a perſon pretty full of the natural ſmall-pox, and near the criſis.

26th. He came to me, that I might inſpect the arm, which then appeared to be certainly infected, and very forward.

28th. He came to the houſe, and informed me he had been taken very ill on the 26th in the evening, and continued ſo all the next day. His complaints had been, great pains in his head and back, with heat, thirſt, and reſtleſſneſs. He was at this time, however, pretty well; but on inſpecting the arms, they appeared much inflamed for a conſiderable ſpace round the inciſion, and the eryſipelatous appearance gradually

gradually extended itſelf over the greateſt part of the arms between the elbow and ſhoulder. He now complained only of ſlight flying pains in his head and limbs, but without the leaſt degree of fever: after a bad night's reſt, ſeveral eruptions were diſcovered on the hips, and one on the neck. Some of theſe maturated, others dried away; and, upon the whole, the procedure was ſuch as would not by any have been called variolous, if unattended with other circumſtances.

CASE II.

Nov. 23d.] A healthy ſtrong man, inoculated at the ſame time, and from the ſame perſon, with the laſt, accompanied him alſo on the 26th, when the arm of this patient appeared in a very doubtful ſtate reſpecting the infection.

On the 28th, when he came to the houſe, the ſkin at the inciſion was diſcoloured, felt hard, ſeemed thickened, did not appear inflamed; nor did he allow it had itched, or that he had perceived any alteration in his health.

Things

Things remaining in this ſtate, I inoculated him again on the 30th in the morning, being the eighth day from the firſt inoculation. On the evening of the ſame day he complained of chilline ſs, attended with pain in his head and limbs, and paſſed an uneaſy night. Theſe complaints laſted in a very moderate degree for two days more, but without the leaſt appearance of a fever. A very few pimples were diſcovered upon the decline of theſe ſymptoms, but they ſoon vaniſhed without maturating.

CASE III.

Nov. 23d.] A third patient, a young man twenty years of age, was inoculated with the two laſt. I had not ſeen his arm from the time he was inoculated to the 28th, when he came to the houſe in company with the others. He ſaid the inciſed part had itched very much the firſt three or four days, but it now appeared nearly in the ſame ſtate as the preceding.

He was alſo inoculated again on the 30th. But as the ſucceeding complaints, and doubtful eruption in this caſe, bore an exact reſemblance

ſemblance to thoſe of the former, it is needleſs to repeat them.

Nothing happened to either from the ſecond inoculation.

CASE IV.

1765, May 5th.] A man aged twenty-four was inoculated; after which he went to viſit a relation, till it ſhould be thought proper for him to come to the houſe, which I directed him to do on the 11th, if he ſhould continue well till that time.

He took with him two calomel pills, one of five and the other of ten grains. He was ordered to take the leaſt on the 8th, the other on the following night, and an ounce of purging ſalts next morning.

I did not ſee him till the 11th, when he came to the houſe: he was then perfectly well, but ſaid he had been a little giddy for the laſt day or two, and that his head ached very much the preceding day for about an hour, inſomuch that he thought he muſt have come over; that his arm had itched very much, and the purge worked very briſkly.

Upon

Upon examining the arms, both inciſions appeared to be conſiderably inflamed, and looked juſt as is uſual on the approach of the eruptive fever, which I had not the leaſt doubt would ſoon happen.

On the 12th he complained of ſome pain in the right ſhoulder, and under the arm, which he ſaid was ſtiff, and felt as if it was ſwelled. However, he continued perfectly well and free from all complaints to the 15th; the arms appearing as is uſual when the diſtemper is attended with very few puſtules; that is to ſay, not quite free from inflammation, but with a ſlight one.

The caſe being not ſo clear as could be wiſhed, in order to be thoroughly ſatisfied, I inoculated him again, taking particular care to infect the part well.

On the 16th in the morning he took a doſe of Inf. Sen. and Manna.

He continued quite well, and no itching, or ſigns of infection appeared from the laſt inoculation.

CASE

CASE V.

May 3d.] A man of 44 was inoculated. I ſaw him every day, and it was eaſy to perceive that the infection had taken place very early.

On the 7th it appeared ſo forward, that I ventured to prognoſticate he would have a very early and mild diſorder, and no eruption.

On the 8th he complained of a pain in his head and back, and that he felt a general uneaſineſs, attended with a loſs of appetite, which at other times was very good. He continued complaining in this manner that whole day, but on the next found himſelf pretty well, and continued ſo without any other illneſs. The inflamed appearance on the inciſion abated from this time.

His health returned, and he ſtill remains perfectly well.

CASE VI.

A middle-aged man was inoculated at the ſame time; whoſe caſe in every cir-

 cumſtance

cumſtance ſo nearly reſembled the former, as to render it needleſs to enumerate the particulars.

Both were inoculated a ſecond time without any eruption or ſigns of infection happening in conſequence of it.

CASE VII.

Dec. 5th.] A healthy man of 38 was inoculated. On the 7th he called on me, when his arm itched very much, and ſhewed certain marks of the infection having ſucceeded.

The inflammatory appearance was then conſiderably abated, and the inciſions ſeemed diſpoſed to heal. He felt no uneaſineſs on the part, nor had he any illneſs.

On the 12th and 13th he complained of pains in his head and limbs, as alſo of ſtiffneſs under his arms, which I eſteem one of the moſt certain proofs of the infection having taken place. There was no alteration in the pulſe, nor any other ſign of a fever; a few pimples about the neck and arms followed theſe complaints, yet not ſuch as I ſhould have eſteemed variolous on any

other occaſion; for ſome ſoon diſappeared; and others, which remained long enough to have a little matter formed in them, proceeded to this ſtate with great irregularity.

He was inoculated again, but without the leaſt effect.

CASE VIII.

A man between 50 and 60 was inoculated about four in the afternoon: on the morning of the third day after the inoculation I firſt ſaw his arms, when they ſhewed uncommon ſigns of infection, being already much inflamed; and upon inquiry, I received from him the following account: that on the ſame evening he was inoculated, he felt an uneaſineſs and numbneſs at and near the place of inſertion; and that the day following theſe complaints increaſed, and ſpread up to the ſhoulder of one arm, which was very ſtiff and numbed; that the inciſion had itched ſeveral times, and his arms felt as if he had been bruiſed by a blow with a very large ſtick. And on the preceding evening, which was the ſecond from the inoculation, his head had

been giddy and in pain, accompanied with ſome chilly fits; but all theſe ſenſations went off without any other illneſs. He had reſted well, and never thought himſelf in better health.

From this time I ſaw him at different times every day, and he continued in perfect health; only ſometimes, eſpecially towards evening, he ſaid he felt as if he had drank too much. The arms were much inflamed; but on the 6th and 7th day they altered their colour to a darker hue, and the inflammation and hardneſs were evidently abating. He now deſired to go a journey of about 20 miles on buſineſs; and this I conſented to, from an abſolute confidence that he was ſecure from any alarming attack; having firſt enjoined him not to go into company where he might riſque ſpreading the infection; for his breath at this time had that peculiar offenſive ſmell which accompanies the diſeaſe.

He returned the following day, being the 8th, in the afternoon, making no complaint but of hunger; yet ſaid his head had ached the preceding night after his journey. His arms were now ra-

ther

ther more inflamed, which I attributed to the friction they might have in the chaiſe; but from this time all complaints of every kind ceaſed. His arms ſoon became quite well; he took his firſt purge on the following day, a ſecond on the 11th, and returned home on the 13th from the inoculation, without having a ſingle eruption of any kind.

It is remarkable in this gentleman's caſe, that being ſo well he did not chuſe to live with thoſe who had the diſtemper, but continued in a lodging with his wife, who accompanied him by way of nurſe, in full confidence of having had the ſmall-pox many years ſince. However, after they got home, ſhe fell ill, and had the diſtemper in a very clear but favourable manner, and doubtleſs caught it of her huſband.

CASE IX.

A young gentleman aged nineteen was inoculated June 2d, 1765.

On the 3d he rode out with a friend in an open chaiſe, and it being ſtormy weather returned home wet. I called on him next morning, and found him in bed, complaining

plaining that he had reſted ill, felt ſhooting pains in his head, his throat a little ſore, thought himſelf feveriſh, and that he had taken cold the preceding day. All this ſeemed very probable; his pulſe was too quick, thought the heat not conſiderable, and he was in a moderate ſweat.

He roſe about ten, and kept within doors the whole day, complaining of wearineſs, ſlight pain in the head and about the ſhoulders; alſo that the inciſed parts felt uneaſy, and itched.

On the 5th he thought his cold conſiderably better, and ventured abroad. His arm appeared certainly infected, and very forward; inſomuch that I ſuſpected he would have no more illneſs in conſequence of the inoculation,

On the 7th the inflammation on the arm was conſiderably abated, and the inciſion ſeemed diſpoſed to heal.

Apprehending from theſe circumſtances that nothing more was to be expected from the operation, he was inoculated again in the evening, from a perſon who had the diſtemper pretty full, though of a diſtinct kind, in the natural way.

No

No marks, however, of infection enſued from this laſt operation; and he continued viſiting with me many patients in all ſtages of the diſeaſe: ſo that it is probable he was then in more danger of infection than he will ever be again.

CASE X.

Dec. 19.] A healthy florid young man was inoculated in both arms; and ſoon after on the ſame day he felt a diſagreeable numbneſs and ſtiffneſs, beginning at the inciſion in one arm, and extending as high up as the ſhoulder. That night at going to bed he took five grains of calomel in a pill.

On the 20th the ſame kind of ſenſation in the arm remained, extending alſo to that ſide of the head, which was in ſome pain. Theſe complaints continued this day and the next. I ordered him to take the ſame mercurial pill at going to bed.

22d. Another indifferent night, with the ſame complaints, and a ſtiffneſs in both ſhoulders. The pulſe appeared to be rather quickened, but without any ſuch increaſe of warmth

warmth as was ſufficient to be called fever. The inciſions were unuſually forward.

23d. In the morning I was told he was better, and had taken a ride to viſit his mother at about ten miles diſtance; alſo that he had ſeveral pimples, which were believed to be the diſtemper.

In the afternoon he returned, when I found there were ſeveral puſtules out, which had the appearance of being true ſmall-pox; and his arms were as forward as is uſual at the time of eruption. All his complaints were now gone off, and he ſeemed quite well.

24th. Gone abroad for his pleaſure.

25th. He called on me; and the puſtules having advanced properly towards maturation, I ordered him immediately to the houſe, where he remained perfectly well, and the puſtules, which were about twenty, maturated very kindly.

27th. He took a purgative, which operated moderately. On the 28th he returned home in good health, and has continued ſo ever ſince.

CASE

CASE XI.

Two men were inoculated at the ſame time, the one about 40 years of age, corpulent, and ſubject to the rheumatiſm; the other between 50 and 60, very thin and healthy.

I ſaw both theſe patients on the third day, when the places of inſertion were in each ſo very much inflamed, that I was pretty certain they would ſcarce have any eruption, and acquainted them with my opinion; both made complaints of itching and uneaſineſs in the part; there was however this difference, the elder ſaid he had felt a numbneſs and ſmarting from the time of inoculation, particularly the following night; that his head had been in pain, and he had had ſeveral chilly fits. The other complained that his arms felt hot and itched, but he was very well. They both came to me on the ſixth day, when the inflammation on the arm of the elder was conſiderably abated; and he ſaid from the time that I ſaw him laſt, he had remained

free from any complaint, except a ſlight uneaſineſs on the parts infected. The inciſions of the other were ſtill in an inflamed ſtate; he ſaid that his head had ached, and that he was very chilly the preceding night; both theſe ſymptoms continued for two days more; but the attacks were irregular, laſted but a very ſhort time, and there was not the leaſt appearance of fever. The other held perfectly well, and all ſigns of inflammation on the arms of both ſoon diſappeared.

They both remained ſeveral days in the ſame houſe, and kept company with others in different ſtages of the diſeaſe; the elder of the two was inoculated again, but without the leaſt ſigns of the infection taking place, and both remain in good health.

CASE XII.

A gentlewoman turned of 50, of a corpulent habit and clear complexion, was inoculated about noon. On the following morning

morning ſhe informed me that the inoculated parts, and more eſpecially one arm, had ſmarted very much, and felt numb up to the ſhoulder, and had been ſufficiently troubleſome to diſturb her reſt; upon inſpecting the parts, they were found much inflamed, and a little elevated, Theſe kinds of feelings were complained of that whole day, and towards night her head ached; but ſhe had no increaſe of heat, or alteration in the pulſe. On the third morning there was a fluſhing on the ſkin round the puncture on each arm, nearly the breadth of a ſixpence; on applying the finger, it felt hard about the middle; and upon the whole, the appearances of infection were as evident as are uſually obſervable on the 9th or 10th day. I therefore ventured to aſſure her, that the diſeaſe would paſs over in a very ſlight manner, and moſt probably without any eruption; and the event juſtified my prognoſtic.

She complained a little of pain in her head for ſeveral evenings, and the inflammation on her arm increaſed; but on the 6th day it began to turn to a yellowiſh

brown, and every inflammatory appearance wore off: ſhe remained perfectly well, living with thoſe who had the diſtemper, and in an infected houſe, without any illneſs.

CASE XIII.

January 9. A ſtrong healthy man, aged 24 was inoculated. The eruptive complaints began on the 8th day, ran pretty high, and on the inoculated parts of each arm he felt very great and unuſual pains. On the 10th a true eryſipelatous ſwelling attacked one arm, and extended from the ſhoulder to the elbow; the other was alſo affected in the like manner, but not ſo conſiderably. In the evening of the ſame day he complained of great pain and ſoreneſs about his ſtomach, and at this time the whole ſurface of the ſkin was nearly covered with a raſh and petechial ſpots of different colours and ſizes.

What I diſtinguiſh by the name of raſh, were pimples much reſembling the confluent pocks,

pocks, and riſing above the ſkin; the petechial ſpots were interſperſed, and even with the ſkin; ſome of theſe were ſmall like fleabites, others were near as large as a ſilver penny; ſome were of a very dark purple, and others of a livid colour. I obſerved them carefully, aſſiſted by a good convex glaſs, and found the appearances ſingular and alarming. But as the fever was not high in proportion to ſuch appearances, the head and back free from pain, and no great weakneſs attended, the event ſeemed to be the leſs doubtful. The patient drank a baſon of white wine whey at going to bed, and I found him pretty well in the morning: the eryſipelas began to be leſs fiery, and put on a darker hue; a few large diſtinct puſtules of real ſmall-pox ſoon diſcovered themſelves, and from this time all went on very well; the arms indeed were of a livid colour for ſome time, but gave the patient no pain or uneaſineſs, ſo that he paſſed through the whole proceſs perfectly well in every other reſpect.

CASE

CASE XIV.

A healthy young woman 20 years of age, after having taken two of the preparatory powders, had a ſlight fever, accompanied with ſickneſs at ſtomach, which were followed by an eryſipelatous raſh; on this account inoculation was poſtponed four days, when the raſh was totally gone. On the 7th day from the inoculation ſhe began to have the eruptive ſymptoms, which were accompanied with more fever and pain in the head and back than is uſual, alſo very great ſickneſs and vomiting; theſe were ſucceeded by an univerſal raſh, of the ſame kind as had happened before; in this ſituation ſhe was ordered to keep her room, and the following medicine directed:

Take compound powder of crabs claws, one ſcruple; emetic tartar, one grain.

This operated moderately by vomit, diſcharging ſome bile, and alſo twice by ſtool. The ſtomach was much relieved, but the raſh remained, and put on ſo much the appearance of a confluent eruption, that I could ſcarce be ſatisfied it was not ſo, though I had

ſeen

ſeen in the ſame perſon but a few days before a ſmaller degree of the ſame raſh. What made the caſe more doubtful was, that the fever ſtill remained pretty high; and her head and back were not much relieved by this eruption. In this ſituation I did not think it adviſeable to expoſe the patient to the open air, but directed only a ſaline mixture, with compound powder of crabs claws, and that ſhe ſhould keep her room, but not her bed.

On the 10th a few diſtinct puſtules were to be diſtinguiſhed, the raſh began to look fainter, and the whole terminated in a very favourable diſtinct eruption, without any particular accident: the ſkin peeled off univerſally, as is not uncommon after a raſh.

CASE XV.

A man aged 44, on the ſixth day after inoculation began to complain of pains in his head and back, and of being frequently very cold. Theſe laſted with great ſeverity, inſomuch that he took the alterative pill, a purging draught, and kept much in the air till the 9th, when about ten puſtules appeared, and his complaints

complaints ceaſed. Theſe ſeemed likely to dry away without maturating, which is not unfrequently the caſe where there are very few.

On the 12th he took a purge; his arm remained conſiderably inflamed; but as he was very deſirous of going to a relation's houſe, where he propoſed to be aired, I conſented to it.

On the 16th I was told he had been much indiſpoſed ſince his removal, and that he wiſhed to ſee me.

On the 17th I viſited him, and found a conſiderable number of puſtules, to the amount of about 40, in the face, of true ſmall-pox. The account he gave me was, that he found himſelf very ill on the evening after his removal, and that he perceived the puſtules the next morning. This was on the 14th day from the inoculation, and the forwardneſs they were in agreed well with his account. His arm continued much inflamed, with many puſtules near the incifion.

CASE XVI.

A healthy young man was inoculated December the 6th, 1766. On the 11th and 12th

he was cold and hot alternately, and complained of great pain in his head, back, and limbs.

The 13th he was much easier, but still felt pains in his head and back. The inoculated parts, which from the operation till this day I had no opportunity of seeing, shewed evident signs of infection; but the skin at the incision was pale, not elevated, nor did a thin fluid appear under the cuticle, as is usual when the progress of infection is favourable; neither had he felt much uneasiness about the incisions, or stiffness in the axilla.

14th. He was free from all complaints; the discolouration on the arm had spread wider, and two or three pustules were discovered near the place of insertion.

15th. Many pustules appeared in different parts, about one hundred.

16th. The pustules were properly advanced, and the man seemed to be perfectly well. But there were now some appearances in the arm which I was dissatisfied with: for the inoculated part was covered with a great number

of very ſmall pale-coloured confluent puſtules: and the inciſion, inſtead of being elevated, was depreſſed, and of a livid colour in the middle; this ſometimes happens, and denotes an eſchar and ulceration at the concluſion of the diſeaſe.

17th. He was ſeized in the middle of the day with a ſhivering fit, ſucceeded by great heat and pain in the head, back, and limbs, which continued all the following night. He likewiſe felt conſiderable pain at the inciſion, and in the ſhoulder extending to the axilla.

18th. In the morning he complained of great pain at the inciſion up to the ſhoulder and the axilla of one arm. The pulſe was very quick, and the fever high. In this ſituation I made no doubt but there would be a ſecond eruption, and therefore perſuaded him to get up and go into the air, and directed an infuſion of ſena and manna to be taken immediately.

This operated four times, and he was conſiderably relieved of all his complaints; but freſh puſtules now made their appearance on the face and other parts, to the amount

amount of double the number at leaſt of the firſt. From this time he remained quite free from fever, and every other complaint; the laſt puſtules, as well as the firſt, maturating in the moſt favourable manner. But what is very remarkable, both crops of puſtules ripened nearly about the ſame time; for the progreſs of thoſe which came out firſt ſeemed to be retarded by the ſecond eruptive fever, and the latter puſtules advanced quicker than uſual.

CASE XVII.

June 2d. Twenty-two perſons were inoculated, who lodged at two neighbouring houſes.

On the 4th in the evening one of them, a man aged 30, had a ſhivering fit, ſucceeded by fever, with pain in the head, back, and ſide, which continued all night.

5th. In the morning, when I firſt viſited him, the pulſe was very quick, full, and ſtrong, and the former complaints remained, but I found him walking about the houſe. On inſpecting the inciſions, both were quite well; while thoſe of every one of his aſſociates, which I ſaw at the ſame time, ſhewed evident marks of infection.

This patient had been very much in the way of infection, and I ſuſpected that he was going to have the ſmall-pox in the natural way: I therefore directed the mercurial and antimonial pill to be taken at night, and that he ſhould go into the air as much as he could bear, but not go into bed.

6th. In the morning I was informed that he had been ſick and vomited, without having a ſtool: and that all his complaints remained, though not quite ſo violent. I preſcribed half an ounce of Glauber's ſalt and half an ounce of manna, diſſolved in water-gruel, to be taken immediately.

In the afternoon I found him in bed, but was told he had been in the air, and that the purge had operated four times. He was now diſpoſed to ſweat, and his pains were abated; but the fever remained as before, with a white dry tongue; he had a troubleſome cough, difficult reſpiration, and great oppreſſion at his ſtomach, but there was not the leaſt ſign of infection in the arm.

7th. In the morning he was much in the ſame ſtate, only weaker. I preſcribed a ſalt

of

of wormwood mixture, with Mindererus's ſpirit, an oily mixture for his cough, and one grain of emetic tartar mixed with 10 grains of compound powder of crabs claws to be taken in the evening.

8th. He had four ſtools in the night, ſweated pretty well, and got ſome ſleep; but he coughed much, breathed with difficulty, expectorated ſome thin frothy phlegm, and complained of great pain in his breaſt and ſide. Eight ounces of blood were directed to be taken away; the antimonial powder was repeated, with an addition of one grain of calomel; and he was directed to drink frequently a cup-full of pectoral decoction, to a quart of which was added one ounce and a half of Mindererus's ſpirit.

9th. The blood taken away yeſterday was very ſizy, the pain in the breaſt and ſide much abated, but the cough very troubleſome, and the expectorated phlegm ſtreaked with blood. The inoculated parts were now diſcoloured, ſhewed evident ſigns of infection, and that we ſhould ſoon have the ſmall-pox to encounter together with the peripneumonic diſorder.

10th.

10th. Very reſtleſs all the night, coughed much, and with great difficulty expectorated brown viſcid phlegm. The bleeding was repeated, and the uſe of the antimonial powder and other medicines continued; which had every day procured ſome ſtools, and ſupported a conſtant breathing ſweat.

11th. The blood was ſtill found ſizy, and the fever, cough, difficulty of reſpiration and expectoration were increaſed. The progreſs of infection in the arm was ſlow, but ſhewed, however, that the eruptive fever would ſoon come on; and I was apprehenſive that it would be ſo confounded with the peripneumonic diſorder as to cauſe much perplexity. I determined nevertheleſs to attempt to relieve the latter by whatever means I could, and wait the event; and therefore ordered more blood to be taken, a bliſtering plaiſter to be applied between the ſhoulders, and a ſmall quantity of gum ammoniacum to be added to his pectoral medicines. In the evening I was informed that all the troubleſome ſymptoms were conſiderably abated.

It muſt here be noted, that all the company,

pany, who had been inoculated at the ſame time, were now ill, and moſt of them had ſome eruptions.

12th. He had had more reſt; but though moſt of his complaints were relieved, yet the fever ſtill continued, and he expectorated with difficulty ſome very dark-brown phlegm, ſo that no alteration was made in his medicines.

The appearance on the inciſions ſpread, but did not look as uſual when the eruptive complaints are begun.

13th. The fever, pain in the ſide, cough, and difficulty of expectoration, being again increaſed, I ordered a veſicatory to the ſide, and ſome oxymel of ſquills in a pectoral mixture.

14th. The fever and pain of the ſide were abated, and he had obtained ſome little ſleep, which was however much diſturbed by ſudden ſtartings. The ſkin at the inciſions had an unuſual appearance, not eaſily to be deſcribed: and inſtead of being inflamed, as it uſually

uſually is, where the progreſs of the infection is favourable, and not interrupted by ſome extraordinary accident, it was of a pale hue.

15th. He had reſted ill, and the cough was ſo troubleſome, that I ordered more blood to be taken, and the medicines to be continued. The inciſions this day looked like puſtules irregularly ſhaped, and a fluid appeared under the cuticle.

16th. All ſymptoms were more moderate; two puſtules were diſcovered in the face, and thoſe at the inciſions ſeemed tending to maturation.

17th. All complaints much eaſier; the puſtules at the inciſions were more elevated, and had matter in them; but the others were but little advanced, and looked pale.

18th. He was in all reſpects ſo much better, that he ventured to ride out on horſeback, and I was releaſed from my attendance; nor did I ſee him afterwards till he called at my houſe in good health on the 5th of July. But he

then informed me, that in the afternoon of the 19th of June, the day after I took my leave of him, he had been extremely hot and feveriſh; was relieved on the 20th from all feveriſh ſymptoms, and diſcovered a great number of puſtules, which roſe, filled, and ripened without any further illneſs; ſo that he did not think it neceſſary to ſend me any notice of them. Looking in his face, I ſaw about thirty marks of ſmall-pox, which confirmed the truth of his report.

I have alſo ſince received a very ſatisfactory account that many puſtules in his face and other parts, which came out after the time I ſaw him, ſtayed a proper time, and maturated completely.

CASE XVIII.

A middle-aged man, on the ſixth day after he had been inoculated, complained of pain in his head and back, and had a ſlight degree of fever. The complaints remained till the 8th, when there appeared ſome eruptions on the face, which I took to be variolous: but it is to be noted, that

having lived pretty freely, his face was very red and full of pimples; and neither the preparation nor medicines had much altered that appearance; ſo that it was no eaſy matter to diſtinguiſh between thoſe which were habitual to him, and the freſh ones. The arm at this time was very conſiderably inflamed, as is uſual about the time of eruption.

On the 9th he was perfectly well, and no more eruptions ſhewed themſelves.

Having had ſeveral patients who undoubtedly paſſed through the diſtemper with no more illneſs than this man had felt, and ſometimes even without any eruption, I really thought that the affair was over.

On the 10th he took a laxative draught, eat a piece of mutton, and drank ſome ale. On the afternoon of the ſame day I found him complaining of a pain in his head, which he thought was occaſioned by his venturing abroad during the operation of the purge. He had now more fever than

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at any other time before; however, as he averred that his complaints were ſuch as he uſually felt from a ſlight cold, I did not apprehend any thing more.

On the 11th in the morning he was ſtill much indiſpoſed, and had reſted ill. In the evening of the ſame day I found him much better, but he ſaid there were more puſtules on his back. Theſe I did not ſee.

Next morning I found he was gone to a friend's houſe, having left word that he was quite well, and I ſhould hear from him if there was occaſion.

On the 14th I was deſired to viſit him, when I found a moderate number of freſh puſtules on the face and limbs, and in ſuch forwardneſs, that I was convinced they had been out ever ſince his removal; which indeed was confirmed by the account he gave me: theſe maturated kindly, and he remains in good health.

CASE XIX.

A gentleman's ſon in perfect health, between four and five years of age, on the third day after inoculation voided a long round worm alive, after having taken on the preceding night a doſe of mercurial phyſick. No ſigns of worms had hitherto been obſerved in him; and he afterwards ſeemed to be quite well, till the ſymptoms which uſually precede the ſmall-pox came on.

After a very moderate illneſs, an eruption of about twenty puſtules ſucceeded, and all complaints then ceaſed; ſo that on the 4th day after the eruption, I propoſed, and was permitted, to diſcontinue my viſits for the preſent. I called again however on the 6th day, and found him well as uſual, and at play, the puſtules being then nearly maturated.

I was informed, however, that in the night of the 4th day, he had been hot, feveriſh, and reſtleſs; was very well the day following, and hot again at night, but

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in a leſſer degree; ſo that this ſlight illneſs did not then give the leaſt alarm. But on the 7th day, early in the morning, I was called up to viſit him as ſoon as poſſible, and was informed that in the beginning of the night he grew extremely hot and delirious, and ſoon became ſtupid, drowſy, and ſenſeleſs; in which condition I found him, grating his teeth, with convulſive motions about the mouth.

The puſtules were at this time quite ripe, and looked, as they always had done, extremely well. His pulſe was very quick, though the heat was now moderate, and the reſpiration free and eaſy; but he was ſo comatoſe, as not to be rouſed, even ſo much as to open his eyes, by any diſturbance that could be given.

In this alarming ſituation I deſired the aſſiſtance of the phyſician, who on other occaſions had uſually attended the family. At our conſultation, which ſoon followed, it was agreed, that as the ſmall-pox were very few in number, had always looked well, and were now completely maturated,

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the preſent ſymptoms muſt be occaſioned by worms, or ſome irritating cauſe in the bowels.

With this view a doſe of rhubarb and calomel was immediately preſcribed and exhibited, though we were obliged to open the mouth by force, and this not without ſome difficulty. The operation of this medicine was accelerated by a clyſter, and a large fœtid ſlimy ſtool, followed by ſome ſmaller liquid ones, was procured that afternoon.

The child, however, ſeemed to be almoſt totally inſenſible during this time, nor did he yet appear to be in any reſpect relieved by theſe evacuations: bliſters therefore were ſucceſſively applied to the back, head, and legs, and ſinapiſms to the feet; leeches were likewiſe fixed to the temples, and rhubarb with calomel, after ſome little interval, again directed; tin medicines being given between whiles.

By theſe means, though not till a conſiderable quantity of ſlimy and extremely offenſive

offenſive fæces had been diſcharged, ſome ſigns of amendment appeared. But the child ſtill remained in ſome degree comatoſe till the fifth day from this attack; after which the progreſs of amendment was very quick, and in two or three days he got quite well, and has ſo continued.

CASE XX.

In May 1766, I was deſired to viſit a conſiderable farmer, aged 68, to give my advice for a complaint in his legs.

About two years before he had been ſeized with a numbneſs and coldneſs in both legs and thighs, which it was apprehended would end in a palſy. For this diſorder he took many medicines, and both his legs were bliſtered, by which he found relief; but from this time the legs were affected with troubleſome itching and burning pains, attended with a ſharp ſerous diſcharge through innumerable excoriations. Theſe complaints deſtroyed his reſt, and made him unhappy.

After

After relating this caſe, he told me, that as almoſt every body in the neighbourhood, who had not had the ſmall-pox, was either under inoculation or preparing for it, he could ſcarcely expect to eſcape the infection, and had therefore a ſtrong deſire to be inoculated; and that his wife of the ſame age with himſelf, was likewiſe deſirous of it.

This propoſal induced me to examine the preſent condition of his legs more ſtrictly. They were now, he ſaid, in their beſt ſtate; that is, not ſo full of pain as uſual; they were dry and ſcurfy. His face was likewiſe ſcurfy, and of a ſettled deep red colour; the conſequence, as he told me, of a repeated Eryſipelas in it, and not of any intemperance.

Upon conſidering the caſe, and reflecting that the preparatory courſe of diet and medicine would probably amend the condition of his legs, I encouraged him to purſue his intention; and both he and his wife, after a fortnight's preparation, were inoculated on the third of June.

On

On the 9th both made ſome ſlight complaints; and on the 12th the wife grew better, on the appearance of a very few diſtinct puſtules, which maturated afterwards in the moſt favourable manner. But the man ſtill complained of pain and wearineſs till the 13th, when he grew eaſier in that reſpect, and felt a ſmarting pain in his legs, which were very red, and had ſeveral puſtules on them. Towards evening they grew more painful, more ſwelled, and a further eruption was diſcernible, though not eaſily to be diſtinguiſhed, by reaſon of their diſeaſed ſtate.

He ſlept very little this night; but on the 14th I found him free from fever, and pretty well in all reſpects, except the pain in his legs; on which, and under the hams, a great number of diſtinct, but almoſt coherent puſtules appeared. There were ſeveral alſo in the neck and face, but very few on the body or arms. He had all along been adviſed not to ſtir much, but had taken greater liberties of walking about than I had allowed.

15th. He had not ſlept a minute during the night. I found him up and walking about the houſe, complaining much of pain, but ſaying that in other reſpects he was well; but he was now rather cool than warm, his pulſe very low, his aſpect languid, the colour of the face inclined to livid and pale, and he complained of faintneſs and ſickneſs. I could not avoid being alarmed. The legs alſo were ſwelled conſiderably, but not inflamed. I therefore ordered him inſtantly to bed; and as the tenſion was great, applied a cataplaſm of bread and milk (being what was neareſt at hand) all over each leg, and directed the following medicine to be taken as ſoon as poſſible.

℞ Mithrid. ʒſs. Decoct. Cort. Peruv. ℥ij. Tinct. Cort. Peruv. ſimpl. ʒij. M. f. hauſt. quam primum ſumend. & ſexta quaque hora repetendus.

℞ Sal. Abſinth. ʒj. ſucc. Limon. ℥jſs. Decoct. Cort. Per. ℥vi. Tinct. Cort. Per. ſimpl. ℥jſs. Syr. e Cort. Aur. ℥ſs. M. f. mixtura, cujus capiat Coch. iv. horis intermediis.

In

In the evening his pulſe was raiſed, he was eaſier, and reſted about an hour.

16th. In the morning, after he had reſted ſome hours in the night, he was eaſier, warmer, and the pulſe better.

17th. After a good night he found himſelf free from complaints, and from this time every circumſtance went on favourably; the pocks maturated on the 7th day; his legs however were both conſiderably ulcerated for a fortnight after, but then ſoon healed. He remains at preſent in good health, and feels leſs uneaſineſs from his legs than he did before the inoculation.

CASE XXI.

A middle-aged woman was inoculated, May 15, 1765. She began to complain on the 23d; the fever and other ſymptoms were very moderate. On the 26th an eruption, diſtinct in kind, ſmall in number, ſhewed itſelf; all the eruptive ſymptoms ceaſed, and ſhe ſeemed perfectly well.

On the 29th ſhe complained that her throat was ſore, felt ſtiff, and ſwelled; but

as this is not unuſual, little regard was paid to it.

30th. She reſted ill, her throat was worſe, and it now gave her great pain to ſwallow. She had alſo been taken with a ſhivering fit, ſucceeded by fever. On inſpecting the throat I could not perceive one puſtule there, but the uvula and tonſils were very much ſwelled and inflamed. An acidulated gargle was directed, and a lenitive purge, which in the evening had operated thrice; the gargle had been frequently uſed, but the difficulty of ſwallowing was greatly increaſed, inſomuch that ſhe could get nothing down; the fever too was rather increaſed. Further help could not now be expected from internals; for upon making the trial, liquids returned through the noſe. I directed a bliſter to be applied to the throat, and that ſhe ſhould frequently gargle with warm pectoral drink.

31ſt. She had not ſlept a minute, being diſturbed, whenever ſhe attempted it, with ſuch ſudden ſtartings as made her afraid to ſleep. The feveriſh heat was not very great,

the

the pulſe extremely quick, and all the liquids ſhe attempted to ſwallow ſtill came through the noſe. She could not lie down in bed, and therefore ſat up in an eaſy chair the greateſt part of the night.

The puſtules, which in the face did not exceed twenty, and very few appeared elſewhere, advanced to maturation kindly, without receiving the leaſt check from this adventitious illneſs. Her ſpeech was ſo much affected as ſcarce to be underſtood. She informed me, however, that ſhe was ſubject to an illneſs of this kind; and had once narrowly eſcaped with her life, but had never been ſo bad before. I directed twelve ounces of blood to be taken from the arm, and that the ſublingual veins ſhould be pricked. But no relief ſeemed to be derived from any of theſe meaſures; and upon inſpecting the throat again, the glands, uvula, and fauces were very much inflamed and diſtended. The tonſils were then lanced pretty deep, and a good deal of blood being diſcharged, the ſwelling of the parts ſubſided, ſo as to admit her to ſwallow, though

though with difficulty, a little pectoral drink, and afterwards a few ſpoonfuls of milk pottage.

June 1ſt. She had reſted but very little, though exceeding drowſy, and worn out for want of ſleep; for the ſudden ſtartings, upon cloſing her eyes, ſtill remained, though not in ſo great a degree as the preceding night; but ſhe had ſwallowed ſome liquids, though with great difficulty. The feveriſh heat was not very great, the pulſe quick and more feeble.

On inſpecting the throat towards noon, the ſwelling, though ſomewhat abated, was ſtill conſiderable enough to prevent much being ſwallowed.

In this dangerous ſituation the operation that had adminiſtered ſome relief was repeated, and other parts of the tonſils and fauces, which had not been wounded before, were now lanced pretty deep; a large quantity of blood was diſcharged, the parts collapſed, and in leſs than an hour ſhe was able to ſwallow liquids; after which ſhe

got ſome refreſhing ſleep, recovered faſt, and is now in good health. The puſtules, notwithſtanding this illneſs, advanced very kindly to maturation, and turned on the 7th day from the eruption.

CASE XXII.

A healthy middle-aged man, rather of a corpulent habit, was inoculated, had a ſlight cold fit (on the 5th day incluſive after the operation) which laſted but a very ſhort time, and was not ſucceeded by either fever or complaint of any kind.

His arms at that time ſhewed certain ſigns of the infection having ſucceeded, which continued advancing to the 9th day, when the inflammations about the inciſions appeared conſiderably ſpread, and were ſurrounded with confluent cluſters of very ſmall puſtules. In other reſpects he was perfectly well, and felt not the leaſt ſtiffneſs or pain in the axilla or elſewhere; inſomuch that he began to be uneaſy leſt he ſhould have no appearance of ſmall-pox.

On

On the 10th ſeveral ſmall pimples were to be ſeen on the forehead, which I ſhould have thought ſmall-pox, if he had not at this time been quite well, briſk, and hearty, without having felt any previous complaint.

On the 11th in the morning many more were to be ſeen on the face, limbs, and body, ſo that he might be ſaid to be very full. I now examined him again very ſtrictly, and could not find that he had been in the leaſt ill; and on enquiring how he had ſlept, he anſwered, never better; for he went to bed about ten, and did not wake till near ſeven in the morning; the eruption, on a cloſe inſpection, had ſuch an appearance as would have made me pronounce it the ſmall-pox of an unfavourable kind, if it had been preceded or attended by any feveriſh or other complaints; but I muſt confeſs, that even at this time I ſuppoſed it was only an inoffenſive raſh, as the patient was then, and had been, entirely free from any complaint.

All this day he continued perfectly well, had walked out of his own accord into the fields,

fields, and in the evening aſſerted that he never had been eaſier or better in all his life; though, as he confeſſed to me afterwards, he had been in ſome company where he ſmoaked his pipe, and drank his ſhare of a quart of ale. Still the puſtules remained, and increaſed in number, though not in ſize; and nothing but the conſideration of his having had none of the complaints which uſually precede even the ſlighteſt kind of ſmall-pox, kept me in any doubt whether they were the ſmall-pox or not.

The next morning, being the 12th, the attending nurſe told me that he had paſſed a very reſtleſs night, with much complaint of pain in his head and back; and I found him very uneaſy, with great heat, a quick pulſe, and very full of a ſmall ſort of ſmall-pox indiſputably.

Theſe complaints coming on at this unuſual time made me apprehenſive of the conſequences. I gave him directly calom. gr. iij. tart. emet. gr. $\frac{1}{8}$, and adviſed him to get up and go into the air, but not to fatigue himſelf too much. I alſo directed that after two hours

he ſhould take a purging draught. [It is to be obſerved that he had had ſtools every day regularly; and remaining perfectly well, had taken no medicine for ſome time.] I called on him again about two, and found him walking about the houſe, when he ſaid he was better, for that the phyſick had worked him five times very ſufficiently, and each time he had been abroad to the privy, though it rained pretty ſmartly.

I ſaw him again in the evening, and then he made but little complaint of pain in either head or back, but was almoſt inceſſantly teized with a ſhort tickling cough, and complained of his throat being ſore. He then took another pill of the ſame kind as that in the morning.

Early the next day, the 13th, the nurſe informed me that he had been very reſtleſs the whole night, had put on his cloaths and came down ſtairs, but was now gone into bed again, in hopes of getting a little reſt. On going into his room I found him almoſt dreſſed again, complaining that he had an almoſt conſtant irritation in the throat, and finding it impoſſible to get any ſleep, was therefore coming

ing down ſtairs. I enjoined him, however, to keep within doors.

About one I ſaw him again; he had had two ſtools, and was better. His cough remained ſomewhat troubleſome, and his throat grew ſore.

In the evening I found him in good ſpirits, with a regular quiet pulſe, and he had one more purging ſtool. I ordered another pill of the ſame kind to be taken at going to bed, and a baſon of ſmall white wine whey after it; alſo an oily mixture to be taken occaſionally, to relieve his cough and the tickling ſenſation in the throat.

The 14th in the morning he had ſome comfortable reſt, and felt himſelf refreſhed; his cough had been much better, ſo that he had taken but once of the oily mixture. This day he had three ſtools from his pill; and the ſmall-pox had advanced in an unexpectedly kind manner.

From this time nothing material happened; the cough left him, and his throat gave him no trouble.

The puſtules filled with good matter in a ſhorter time than I ever ſaw ſuch a number of ſo ſmall a ſort, and many were brown on the 17th day, being the 7th from the firſt appearance.

On the 19th he took a purge, and was perfectly well.

To theſe caſes many others of a ſimilar nature might be added. But by ſeveral unforeſeen delays, not in my power to prevent, I have been obliged to treſpaſs ſo much already on the patience of thoſe who wiſhed to ſee ſome account of this practice, that I ſhall only mention a few, which by a partial or untrue relation might poſſibly be conſtrued to the diſadvantage of inoculation; though when the particular facts are candidly exhibited, every juſt occaſion of prejudice will undoubtedly be removed.

During the autumn of the laſt year the chin-cough was epidemick at Hertford; and as the winter approached, the ſmall-pox alſo broke out in many places; and almoſt every

every child, who before had the chin-cough, and was ſeized with the natural ſmall-pox, died of a confluent kind. This calamity fell ſeverely among the poor of this place, many of whom earneſtly entreated me to inoculate their families; but this was ſcarce poſſible, without ſome neceſſary proviſion could be obtained for them from the pariſhes to which they belonged; I therefore acquainted the clergymen of the reſpective pariſhes, that if proper care was taken that neceſſaries were not wanting, I would freely inoculate and attend all ſuch as I thought were proper ſubjects.

Both the gentlemen approved the deſign; but after a ſhort conſultation with their pariſhioners, the affair was put off, the pariſh officers alledging they could not provide proper places.

That ſuch a deſign had been in agitation ſoon became known, and a number of poor people were continually ſoliciting me to inoculate them and their children at all events, promiſing to provide for themſelves to the utmoſt

utmoſt of their power. Some had the diſeaſe already in their families. It was ſo much in the neighbourhood of others, that they were in daily fear of taking the infection, and their diſtreſs on this occaſion great. Women with children at their breaſts, in want of all neceſſaries, yet ſolicitous for the ſafety of their offspring, preſſed me to inoculate them and their children with an importunity not to be deſcribed. I acquainted them with the danger attending the infant ſtate; but reaſons availing nothing, I yielded to inoculate all who had not the chin-cough, or any other dangerous illneſs, though againſt my opinion and inclination, almoſt againſt my determined reſolution. Amongſt a very great number of ſuch ſubjects of all ages and conſtitutions, and where ſome might reaſonably be preſumed to have taken the infection in the natural way, I expected ſome diſagreeable events would happen; but the probability of ſaving the lives of many preponderated. The following however are the only caſes that border on the unfortunate; and the reader will, if ſkilful and candid, eaſily place them to the right account.

A mother

A mother and three children (one of them at the breaſt) were inoculated. The children had then the chin-cough; but this was carefully concealed from me, as I had refuſed all under ſuch circumſtances. The youngeſt, of about five months old, had only five or ſix puſtules in the face, and not more elſewhere proportionably. She lived paſt the criſis; but the cough remained violent, and ſhe was much enfeebled, and died as children do who periſh by the chin-cough, and without any one circumſtance of danger that could be ſuppoſed to proceed from inoculation.

Another weakly child, about five months old, I had perſuaded the mother to wean, in order that ſhe herſelf might be inoculated. During the preparation this woman fell ill of a fever, as ſuppoſed; but on viſiting her, I found the confluent ſmall-pox appearing, and that the child had lain with her conſtantly. I was earneſtly ſolicited to inoculate this infant, in order to give it a better chance, which with great reluctance I yielded to; it had a very ſmall number of diſtinct puſtules,

puſtules, and paſſed through the diſeaſe ſafely; but not being reconciled to any food but the breaſt, it died ſoon after, languiſhing for want of proper ſuſtenance.

Another unfortunate ſubject was alſo a child at the breaſt, one of eight children, who with the father and mother were inoculated together. On the third day from the inoculation this child was ſeized with a fever, which from the ſymptoms I ſuſpected aroſe from worms. I gave it a grain of calomel; a large worm was voided the next day, and the child was ſeemingly better; but the fever returned at night, and continued without remiſſion in ſuch a manner as to be very dangerous in itſelf, and prevented any diſtinction of the eruptive ſymptoms: at length a confluent kind appeared, though the number was not great; the bad ſymptoms were not alleviated by the eruption, and the child died early in the diſeaſe.

All theſe caſes happened ſince the introduction and firſt chapter was wrote; and have confirmed my opinion, that it is better, both

both on account of the ſubject and the reputation of the practice, to defer inoculating children till they are about two years old.

It ſeems not improper likewiſe to mention the following caſe; which, if the whole truth is not related, may poſſibly afford matter of cavil againſt inoculation.

A ſhort, thick-ſet, middle-aged man was ſeized with the uſual ſymptoms on the eighth day after inoculation. The eruption was favourable, the crop moderate, the puſtules large and diſtinct, and no peculiar care was either required or obſerved. The pock maturated in ſeven days; after which he took two purges, and had fixed the day for his return to London.

Two days before his intended journey I found him in the morning ſitting by the fire, with his hand upon his head; upon enquiring the reaſon, he anſwered, My head feels very queer to-day: a perſon in company added, that he had made too free with mutton the day before; but this he denied. He did not however ſeem much indiſpoſed; he

had taken a purge, and I expected he would be relieved by its operation.

Next morning he told me he had a good night's ſleep, and was perfectly well; nevertheleſs, two hours after he fell down ſuddenly in a fit, and ſenſeleſs. In this condition I found him about ſix in the evening, and ſo he continued till the night of the following day, when he expired, perfectly apoplectic, in ſpite of every means we could attempt for his relief.

CASES

CASES of the natural ſmall-pox, treated in the preceding method.

CASE XXIII.

ONE morning about ten I was deſired to viſit a poor man in a fever. Two days before, in the evening, he had been ſeized with a ſhivering fit, which was then ſuppoſed to be the ague; he ſoon grew extremely hot, with pain in his head, back, and loins, which continued till I ſaw him, the 24th October: he had kept his bed, had ſcarce any ſleep, his heat great, pulſe ſtrong and quick, and the pain in his loins very ſevere. This man had applied to me to be inoculated a little before he was taken ill, on account of the ſmall-pox being very much in his neighbourhood; but he had not as yet taken any preparatory ſteps. I made no doubt but he was now attacked with this diſeaſe, and from the ſeverity of the ſymptoms expected it would prove of the confluent kind. As he lived near me, and I could eaſily attend to every circumſtance, I determined to try

how far the cooling method might be beneficial in treating the natural ſmall-pox.

I found it very difficult to perſuade him to riſe out of bed, as he thought himſelf utterly unable to ſupport himſelf, notwithſtanding he was on other occaſions a reſolute man. Aſſuring him however that I would not attend him unleſs he would comply, he promiſed to uſe his utmoſt endeavours. I left him to put this advice in practice, and ordered him to a carpenter's yard about one hundred yards diſtance, where I promiſed to meet him.

In about a quarter of an hour I found he had reached the place of appointment, by the aſſiſtance of a neighbour, and was ſitting on a bench, complaining of great weakneſs, and pain in his loins; which he deſcribed, by ſaying he felt as if he was cutting in two; but allowed that his head was eaſier ſince he had been in the air. Finding that he had had a ſtool the preceding day, but none ſince, I gave him a pill, containing about ſix grains of calom. and $\frac{1}{6}$gr. of emet. tartar immediately;

ately; and as he complained of great thirſt, I permitted him to drink half a pint of cold water after it. I adviſed him not to ſit, but to endeavour to walk about a little, though ever ſo ſlowly; this he attempted, but went almoſt double. At this time the weather was not very cold, but there was a pretty briſk wind, with ſmall rain.

About a quarter of an hour after I ſaw him again; he had reſolutely perſiſted in following my directions, and ſaid his head was greatly relieved, but the pain in his back and loins was much the ſame. His pulſe was now much altered; inſtead of being full and ſtrong as before, it was low, but quick, and the heat on the ſkin greatly abated. As he ſeemed much fatigued, I did not inſiſt on his keeping abroad longer, but permitted him to go home, deſiring him to refreſh himſelf, but not to pull off his cloaths, or go into bed.

At two o'clock I ſaw him again; his pill had then worked twice; he ſeemed fatigued and faint, but was abroad, for he ſaid the air refreſhed him, and his head was eaſier in the

air than within, ſo that as ſoon as he was a little reſted he came out by choice. The pain in his loins ſtill remained very grievous, but his head was much eaſier; and his back and loins became leſs painful towards evening. I allowed him to go to bed about ſeven; but being deſirous of obſerving the full effect of this kind of treatment, I ordered no medicine.

25th. Had but little reſt, and his complaints nearly the ſame as when he went to bed. His pulſe was now raiſed, and more full than in the evening, and the degree of heat greater than over night. A few ſmall puſtules were now beginning to ſhew themſelves on his face; I directed a purging draught of infuſion of ſena and manna, quickened with jalap; adviſed him to get out of bed, and venture again into the air. This he did: by two o'clock the purge had worked thrice, and he was freer from the pain in his back and loins: more puſtules now appeared in the face, but ſcarce any on the limbs. He had hitherto taken nothing ſince his firſt ſeizure, but tea with milk, ſage and baum tea, loath-

loathing all other nouriſhment. He perſiſted in keeping out the greateſt part of the afternoon; and at ſeven went to bed, when I found the pulſe more calm and regular, and as his complaints were leſs violent, he began to think of nouriſhment.

26th. I ſaw him at ſeven in the morning; he had ſlept but little, had one purging ſtool in the night, and felt himſelf low and languid; his pulſe was now even, full, and regular, and his heat moderate. Many more puſtules were out in the face, though but few on the limbs, and his complaints of pain in the head and back went off. He took milk pottage with ſome appetite, and ſpent the greateſt part of the day abroad.

At three in the afternoon I ſaw him, and was told, that lying down in the bed he had fallen aſleep, and waked almoſt choaked with blood; that he had vomited up a conſiderable quantity, which doubtleſs had been ſwallowed, as he was found bleeding at the noſe. From what I could learn, the whole ſcarcely exceeded ſix or eight ounces.

He

He complained of faintneſs, and ſaid his pains were removed. I ordered him to drink the pectoral decoction, acidulated with a mixture of equal quantities of ſweet and weak ſpirit of vitriol. The number of puſtules continued increaſing ſlowly on the face and other parts.

Late in the evening I ſaw him again; two more purging ſtools had followed; he complained of being very faint and low, and feared he ſhould have no reſt.

I now thought it proper to give him an anodyne cordial, and therefore ordered mithrid. ʒſs. which he took immediately. By the help of this he paſſed a very refreſhing comfortable night, and thought himſelf quite well. The eruption was now completed; the ſmall-pox might be properly called diſtinct: though full in the face, he had only a moderate number of a large ſort on all the other parts; and he went through the ſucceeding ſtages without any difficulty.

CASE

CASE XXIV.

A young woman who was ſervant in a houſe where a child had the ſmall-pox in the natural way, determined to ſtay there and take her chance.

December 25th, 1765, I was deſired to ſee her. She had been taken with a cold fit the preceding afternoon, which was ſucceeded by a fever, and the uſual ſymptoms attending the eruption, but in a ſevere manner. I found her in bed, making great complaints of pain in her head, back, and loins; her pulſe ſtrong, quick, and full; a fluſhing red colour in the face, and the fever very high.

With much difficulty I prevailed upon her to get up; ordered her to drink ſome cold water, and go abroad into the air, though it was a very froſty morning, with ſleet. At one o'clock I called again, and found her then below ſtairs walking about. The heat was much abated, her complexion pale, the pulſe ſmall and quick, and all her complaints conſiderably abated.

The account I received from her, and the perſons who attended her, was, that upon firſt going into the air, ſhe was ſo feeble, that the nurſe, and another to aſſiſt, could ſcarce ſupport her, and it was with much difficulty that ſhe could walk with this aſſiſtance; that ſhe drank a glaſs of cold water from the pump, and before ſhe had been abroad many minutes found herſelf much eaſier, and had remained ſo ever ſince. It now rained pretty hard, which had obliged her to come in; but ſhe ſaid if her complaints returned, ſhe would certainly go out again, be the weather ever ſo bad, and in this reſolution I encouraged her.

On the 26th, about eleven in the morning, I viſited her again, found ſhe had paſſed a pretty good night, and had felt no remarkable uneaſineſs; ſhe had been abroad ſeveral times the preceding day, to which ſhe imputed the eaſe ſhe enjoyed. Two puſtules of a diſtinct kind were now out on the face, and ſhe had the diſeaſe in a very favourable manner, without the leaſt bad ſymptom during the progreſs, or any ill conſequence afterwards.

CASE

CASE XXV.

Jan. 3d, 1766.] A healthy young man was inoculated in company with four of his neighbours. On the ſixth, preſuming that none of them would be ill, I went to London on buſineſs. Returning on the 7th in the afternoon, I was met by a ſervant, who informed me that this man had been taken ill on the 5th in the afternoon, had continued very bad ever ſince, and now had ſomething broke out, which was ſuſpected to be the ſmall-pox, and that I was deſired to viſit him immediately: this I complied with, and found him in bed, complaining much of pain in his head, back, and loins, with great heat. Some ſmall puſtules were out in his face, which I perceived to be ſmall-pox; this was at five in the evening, and much about forty-eight hours from the firſt ſeizure.

The weather was at this time exceeding cold, and it froze very hard. I ordered him out of bed immediately, to drink a glaſs of cold water, and to get ſome aſſiſtance, and walk abroad in the air. Upon inquiry I found he had paſſed without a ſtool

the whole day. Five grains of calomel in a pill were ordered to be taken immediately. He reſted but little this night, and next morning a great many more puſtules were out in the face, ſufficient to ſhew a diſpoſition to flux. As this pill produced no manifeſt effect, I ordered ſal. glaub. ʒvi. diſſolved in water gruel to be taken immediately. The vehemence of the fever and other ſymptoms were ſcarce moderated by this eruption.

Notwithſtanding the medicine and the ſeverity of the weather, I deſired he would get on his cloaths, and go into the air as much as he could poſſibly bear, and in the evening ordered him to be carried in a chaiſe to the houſe provided for him in caſe he had been ill from inoculation. I examined the inciſions carefully, but there were not the leaſt ſigns of the infection having ſucceeded, either by diſcolouration, hardneſs, or any alteration on the ſkin, nor could he recollect that they had itched or given him the leaſt uneaſineſs.

In

In the evening he came to the houſe as ordered, but was ſo very feeble and full of complaints, that it was with great difficulty he was got to his room. Upon enquiry I found he had vomited up the ſalts ſoon after taking them, and had only one coſtive ſtool; he had complied with my orders about getting into the air ſeveral times in the day, though with great difficulty. His complaints of thirſt, pain in the head and back, were at this time very great. I directed him to ſit with his feet in warm water for a ſhort time, and, on going into bed, to take a few ſpoonfuls of a laxative mixture, which was to be repeated till he had ſtools.

9th. He had been delirious in the night, but reſted a little towards morning; the number of puſtules was now conſiderably increaſed. This day he had three ſtools from his purging mixture, by which he was relieved, and bore ſitting up better.

10th. He paſſed the night eaſy, but without ſleep. He was very full in the face, but had a ſmaller number on the body and limbs.

limbs. No complaint, deſerving notice, happened during the progreſs to matura-tion. He ſat up a part of every day to the eighth from the eruption, when, being blind, and very ſore, he kept in bed: they turned on the eleventh, and he recovered perfectly.

It was remarkable in this caſe, that the inoculated parts never ſhewed the leaſt ſigns of infection; nor did a greater number of puſtules appear near them than might have been expected if nothing had been done; nor is there to be ſeen the leaſt mark where the inoculation was performed, though in all other inoculated patients who have had the diſeaſe, even in the ſlighteſt manner, there conſtantly remains a ſcar.

It appeared, on enquiry, that this man had been for a conſiderable time before in a conſtant intercourſe with families in the ſmall-pox; and there ſeems not to be the leaſt doubt but his was the natural diſeaſe.

CASE

CASE XXVI.

A young woman was ſeized with a fever, and the uſual ſymptoms. The next day an eruption appeared, which gave ſome ſuſpicion of the ſmall-pox: on the third day more ſpots were diſcovered, but ſhe was not relieved. The diſorder was now ſuppoſed to be an inflammatory fever, attended with a raſh; and as ſhe was extremely delirious, a bliſter had been applied about two hours before I firſt ſaw her. The face was extremely full of very ſmall puſtules, which indeed were the ſmall-pox, and there was a conſiderable number on the neck and limbs; but notwithſtanding this eruption, the fever was very high, and the degree of heat ſo exceſſive, that I ſcarce ever felt a perſon hotter; ſhe was ſo far ſenſible as to complain of great pain in her head, ſtomach, and loins, though very delirious and extremely reſtleſs. She was at an inn much uſed by carriers, and it was highly improper ſhe ſhould remain there. In her preſent ſituation I was ſenſible it might appear very hazardous to move her; but it was evident that ſmall-Pox would be con-

fluent. I judged from the violence of the ſymptoms the diſeaſe would be dangerous, and the event doubtful, and was therefore deſirous of trying how far the ſame method and remedies which were uſed ſo ſucceſsfully in the inoculated ſmall-pox, as well as in ſome caſes of the natural diſeaſe, would avail in this. The neceſſity of removing the patient afforded me a good opportunity, without any imputation of raſhneſs. I therefore propoſed her being taken down ſtairs into a parlour under the room where ſhe then lay, while I was preſent, and ready to aſſiſt, if the fatigue ſhould be too much for her; this was conſented to; the women aſſiſted in getting her cloaths on, which ſhe ſeemed much pleaſed with, being then delirious. She was altogether unable to ſtand, and was therefore brought down by three perſons in the ſame manner as if ſhe had been dead. She was then placed in a chair, but had not even ſtrength to hold herſelf upright, but was ſupported in that poſture by the women about her.

The fatigue of moving, and change of poſture, occaſioned a faintneſs, in which ſhe loſt

loſt all colour, and the puſtules for a time diſappeared; upon this, the chair was leaned quite back, the bed was brought down, and laid on the floor, ſhe was placed on it with her cloaths on, and eagerly drank a glaſs of cold water. Her colour ſoon returned; the puſtules appeared as before; but ſhe was conſiderably cooled, and her pulſe, though it retained the quickneſs, was not near ſo ſtrong: I ſtaid with her about half an hour, during which time ſhe was more ſenſible, and not ſo reſtleſs, but ſeemed languid and tired. I ordered the window to be opened, the room to be kept cool, and gave her three grains of calomel, tart. emet. gr. $\frac{1}{8}$, in a pill, and directed a purging draught to be taken as ſoon as it could be procured, and as there ſeemed no occaſion for the bliſter, it was taken off.

I ſaw her next morning at a houſe to which ſhe had been removed at a ſmall diſtance, and found her almoſt free from complaints; ſhe had reſted moderately well, was perfectly ſenſible. Thoſe about her dated her amendment from the time when the purge (which had procured three ſtools) began to operate.

She was however extremely full all over of a very ſmall confluent kind; yet theſe inflamed and maturated in a very favourable manner. From the minuteſt obſervation I could make, it ſeemed to me that by this management the number in the face was leſs than when I firſt ſaw her, conſequently that ſome puſtules were repreſſed after they had appeared.

CASE XXVII.

In the beginning of June 1766, a young woman was taken with a ſhivering fit, ſucceeded by a fever, and the ſymptoms that uſually precede the ſmall-pox, in a very violent degree: theſe were attended with ſuch general weakneſs, that in a few hours after the ſeizure ſhe was obliged to go to bed, where ſhe ſoon became delirious, and afterwards inſenſible, her urine paſſing involuntarily; in this condition I firſt ſaw her about forty hours after ſhe was taken ill. The heat was exceſſive, her pulſe extremely quick, but not ſtrong, and a few ſmall eruptions appeared on the face, ſufficient to aſcertain the diſtemper. Upon raiſing her up ſhe did not make the leaſt

leaſt effort to ſupport herſelf, and therefore was permitted to lie down, and as the room was ſmall, the window was ſet open. Five grs. of calomel were with great difficulty got down; and an infuſion of ſena with manna being prepared, the perſon attending was deſired to give a little and often, till ſhe had a ſtool.

It was very improper that ſhe ſhould remain in the houſe where ſhe was, on account of the family; yet there was no poſſibility of moving her in her preſent condition. Next morning I was informed ſhe had remained in the ſame ſtupid way the whole night, but was now rather better, and had ſpoke more ſenſibly, had two ſtools, and vomited up ſome bilious matter. The heat was ſtill great, the pulſe quick, and many ſmall confluent puſtules were out in the face and other parts; this was the third day of her illneſs. I adviſed her being got out of bed, and the windows to be kept open; but was in doubt whether ſhe had ſtrength enough to be taken into the open air.

In the evening the eruption was increaſed conſiderably in number; and ſhe was ſo much of eaſed her complaints, as to bear being removed in a cart to a houſe in the neighbourhood, where I gave her calomel three grains, emetic tartar one eighth of a grain.

She had ſome reſt this night, but the fever continued; and not having had any more ſtools, ſhe was ordered to take a laxative potion of inf. of ſena and manna. She had three ſtools before evening, and all her complaints abated. She was very full all over of a very confluent kind.

This young woman ſat up the greateſt part of ſeveral days after ſhe was quite blind, by her own choice; and I do not recollect ever ſeeing one with ſo large a crop of puſtules who went through the diſeaſe ſo eaſily; for ſhe made no complaint but of ſoreneſs, nor took any medicine but a few drops of thebaic tincture at bed-time, towards the criſis.

CASE

CASE XXVIII.

A poor man about 35 years of age, who had gone through the preparatory courſe, came to my houſe in company with ſeveral more, in order to be inoculated. As ſoon as he came into the room, I perceived he was ill; and on enquiring he told me, that about two hours before he had been taken with a fit of the ague, and that his head, back, and loins were in great pain. Feeling his pulſe, I found a good deal of fever, his ſkin was alſo very hot. I knew the ſmall-pox was in his neighbourhood; and thence concluded he was ſeized with this diſtemper. I adviſed him to keep abroad in the air as much as poſſible, and directed a pill of the kind already mentioned at night, and a purging draught the following morning.

Theſe operated four or five times, and he perſiſted in obeying my orders; the fever and other complaints were not ſo high as to give any great alarm; he had a pretty large number of a diſtinct pock, and went through the diſtemper very well.

CASE XXIX.

About three in the afternoon I viſited a middle-aged man, who after two days illneſs had an eruption, which the neighbours ſuſpected to be the ſmall-pox; I found him in bed, very hot, and in a ſweat; his pulſe quick, full, and ſtrong; his face pretty full of ſmall-pox, which had begun to appear in the morning. I received the uſual account of the preceding ſymptoms, which had been pretty ſevere, and he ſtill made great complaints of pains in his head, back, and loins; I immediately gave him a pill, containing cal. gr. v. tart. emet. gr. $\frac{1}{8}$, which I had taken with me upon a preſumption that I might want it: I alſo inſiſted on his getting up, and going abroad into the air, notwithſtanding the ſweat he was in, which it was my intention to reſtrain: I met with the uſual difficulty in getting this advice complied with; however he was aſſiſted, came down ſtairs, and went abroad, being ſupported by his wife; for he ſeemed very weak, and had not been out of his bed for two days before;

as

as he complained of great thirſt, I gave him a glaſs of cold water, and ſtayed about half an hour to ſee the effect of this treatment; he was at firſt very faint and ſick, and vomited up ſome bilious matter, but not the pill he had lately taken: after this, while I ſtayed, he ſaid his head was better, and allowed he was refreſhed by the air; I deſired him to continue abroad as much as he could, and when he found himſelf tired, to go in and lie down a little; but as ſoon as he was able, to get out again, and if thirſty to drink as much cold water as he pleaſed. I then took my leave, ordering a purging draught to be taken as ſoon as he received it, which I concluded would be at leaſt three or four hours from that time.

Next morning, on viſiting him, I was told that the purge had operated four times, that he found himſelf conſiderably relieved, both in his head and back, and had reſted better than any time ſince he had been taken ill. The eruption proceeded ſlowly; but many more puſtules now appeared in his face, and other parts, than before; he kept abroad, and his

his complaints continued wearing off. Next morning I found him quite eaſy; he was pretty full of a diſtinct pock, and from this time all went on well, without having occaſion to take any more medicines.

FINIS.

MINERAL WATERS.

AT OWEN'S ORIGINAL MINERAL WATER WAREHOUSE,

(Late EYRE's) between the Temple-Gates, Fleet-Street.

Eſtabliſhed in its reputation near *fifty* years, by the recommendation of the moſt *eminent Phyſicians*;

Are ſold, Wholeſale or Retale *(for ready Money only)* all Sorts of MINERAL WATERS, now in Uſe, or preſcribed by the *Faculty*, in their utmoſt Perfection, and at the loweſt Prices, viz.

SEltzer water, in large ſtone-bottles.
German Spa waters, filled at the *Pouhon Spring*, in large flaſks.
The ſame, in ſmall flaſks.
Pyrmont water, in three-pint-bottles.
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Bath water.
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The waters of *Bru* being notoriouſly ſold at a low price, for the true *Pouhon water of Spa*, to the great diſappointment of the phyſicians and their patients (as appears by the following certificate, the original of which is in my poſſeſſion); in order to prevent impoſitions (*ſo dangerous to health*) as much as lies in my power, I preſume to deſire the favour of thoſe who are ſo kind as to honour me with their commands, to give ſtrict orders, that the meſſenger do always bring back one of my printed bills, with a receipt ſigned by their moſt obedient ſervant,

W. OWEN.

We do prefer the waters of the *Pouhon ſpring* in *Spa* to any of the mineral waters in or near the country of *Liege*, particularly to the waters of *Bru*; which waters have been notoriouſly impoſed on the public for the true *Pouhon* water, to our and our patients diſappointment.

September, 1733. *Hans Sloane*, *John Shadwell*, *Jo. Hawys*, *N. Broxholme*, *R. Mead*, *Tancred Robinſon*, *Tho. Weſt*, *J. Burton*, *John Hollings*, *Tho. Pellet*, *Alexander Stuart*, *M. Lee*.

Note. *Bath*, *Briſtol*, *Sea*, and ſeveral of the above waters, come conſtantly freſh every week, by land carriage.

*** To prevent miſtakes, by porters, &c. as well as impoſitions, be careful to order from OWEN'S WATER WAREHOUSE, as above, and always have a bill and receipt ſigned by him. This caution is become very neceſſary, as large quantities of SPURIOUS WATERS have been ſold at a LOW PRICE, for the GENUINE WATERS, to the frequent diſappointment of the phyſicians and their patients.